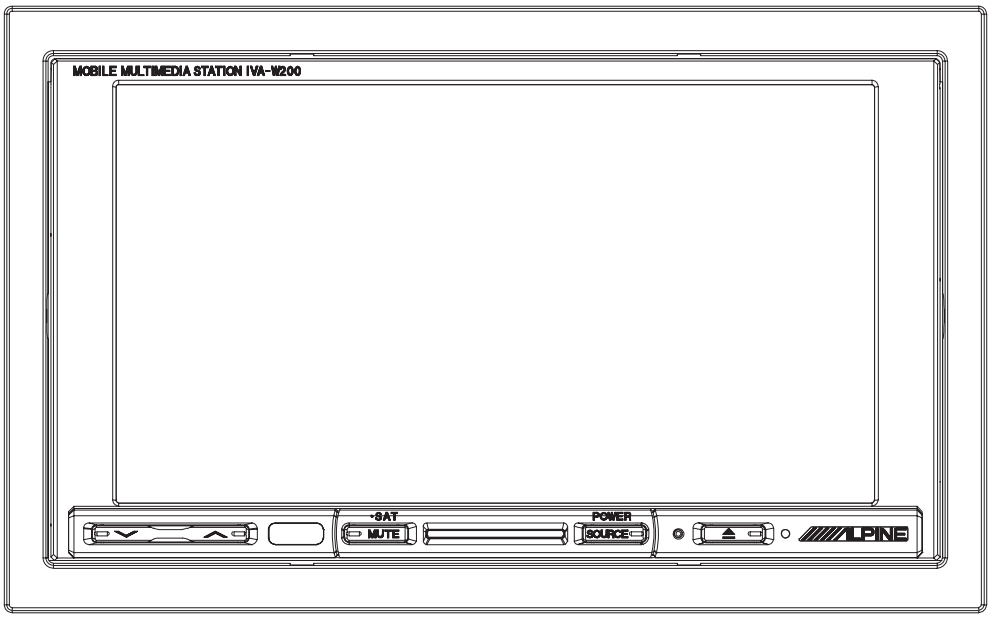
ALPINE

SERVICE MANUAL

Mobile Multimedia Station
Mobile Media Station

Caution : The part marked with ⚠ is generating a high voltage, so care will be necessary when working.



(IVA-W200)

TO ALPINE Home Page

3 / 06-A
A05036

IVA-W200/IVA-W200E

<Cautions for Safe Repair Work>

The following cautions will prevent accidents in the workplace and will ensure safe products.
*The symbols indicate caution is needed to prevent injuries and damage to property.
The symbols and their meanings follow.

Warning	If you ignore this symbol and handle the product incorrectly or unsafely, serious injury or death may result.
Caution	If you ignore this symbol and handle the product incorrectly or unsafely, injury or only material damage may result.

*The following symbols indicate two levels of cautions.

	When you see this symbol, you have to be very careful.
	When you see this symbol, you have to follow the instructions there.

Warning

Do not look squarely into the laser light coming from the pickup. You may loose you sight.	**Fuse Caution** Always use a designated fuse. Use of an incorrect fuse may result in a fire.

Caution

Do not allow wiring to be caught in the screw/chassis. If wiring is caught in the screw/chassis, it may cause a short circuit, resulting in a fire.	**Battery Caution** Use the designated battery. Confirm the correct polarity and seat of the battery. An incorrect battery or an improperly connected or seated battery may result in a fire.
High Temperature Caution Touching the heat sink may cause severe burns.	**Designated Parts Caution** Look up the part list and ensure that only designated parts are used to prevent problems or accidents.
Reverse Power Supply Connections or Misconnections Caution Reverse power supply connections or misconnections may cause ignition problems and smoke may result.	**Wiring Caution** Ensure that the wiring is correct when rewiring to prevent problems with ignition/breakdown.
Soldering Caution Hot solder from solder splash may cause severe burns.	**Wear Gloves** Wear gloves to prevent electrical shocks or injury from the end face of the metal.

For the FDA laser standard, the following CAUTION label is stuck on each product.
Please be careful for repair.

CAUTION-Laser radiation when open, DO NOT STARE INTO BEAM

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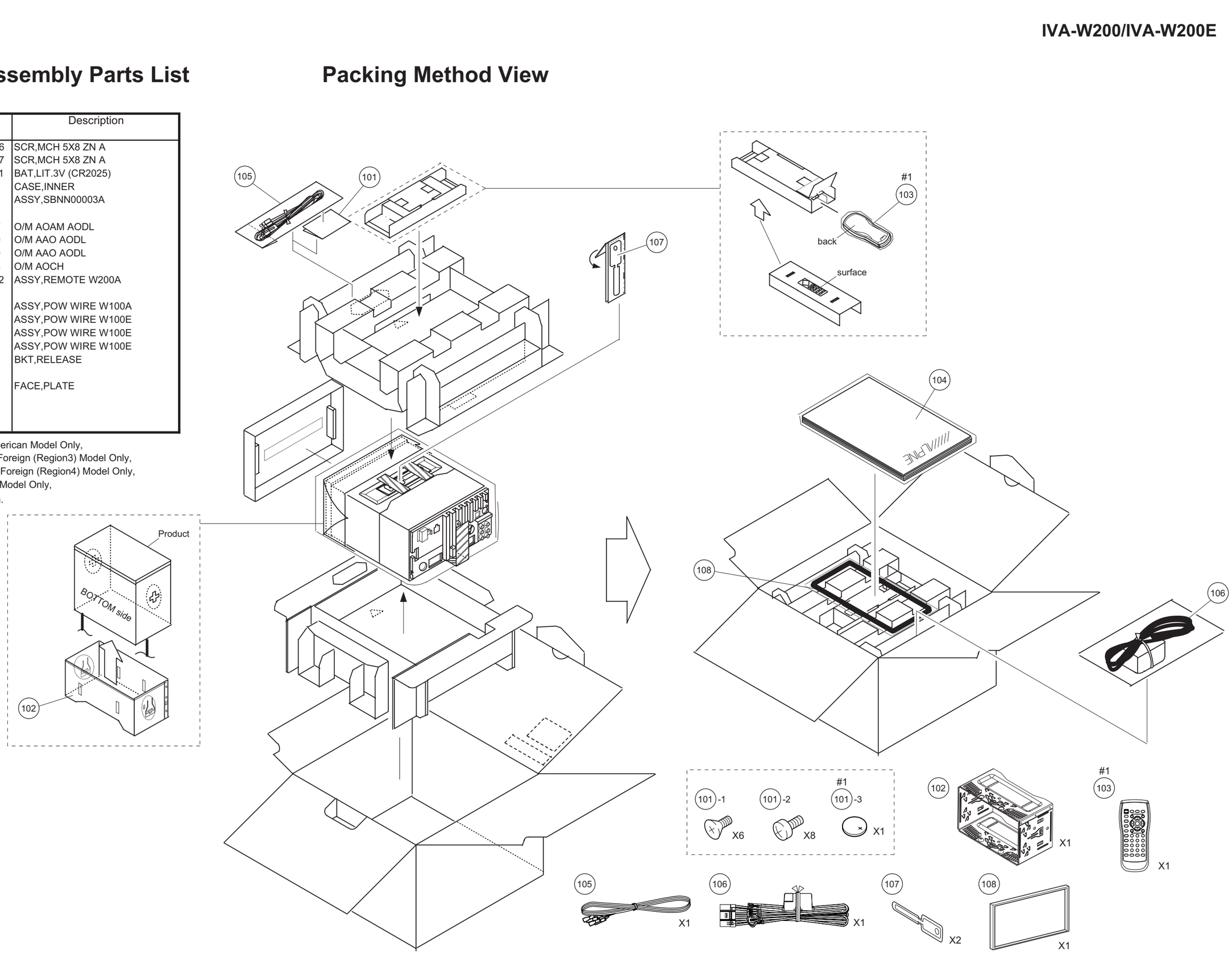
NOTE : Due to continuing product improvement, specifications and designs are subject to change without notice.

Packing Assembly Parts List

Symbol No.	Part No.	Description
101-1	03S60820Y16	SCR,MCH 5X8 ZN A
101-2	03S60820Y17	SCR,MCH 5X8 ZN A
#1 101-3	60S70585F01	BAT,LIT.3V (CR2025)
102	15-05590Z01	CASE,INNER
#1 103	97-02173Z01	ASSY,SBNN00003A
#1 104	68-04123Z67	O/M AOAM AODL
$1 104	68-04123Z69	O/M AAO AODL
%1 104	68-04123Z69	O/M AAO AODL
&1 104	68-05946Z33	O/M AOCH
105	01T75479Y02	ASSY,REMOTE W200A
#1 106	09-05505Z01	ASSY,POW WIRE W100A
$1 106	09-05506Z01	ASSY,POW WIRE W100E
%1 106	09-05506Z01	ASSY,POW WIRE W100E
&1 106	09-05506Z01	ASSY,POW WIRE W100E
107	07-01964Z01	BKT,RELEASE
108	33-05591Z01	FACE,PLATE

NOTE : #1 : For North American Model Only,
$1 : For General Foreign (Region3) Model Only,
%1 : For General Foreign (Region4) Model Only,
&1 : For Chinese Model Only,
Others : Common.

Packing Method View

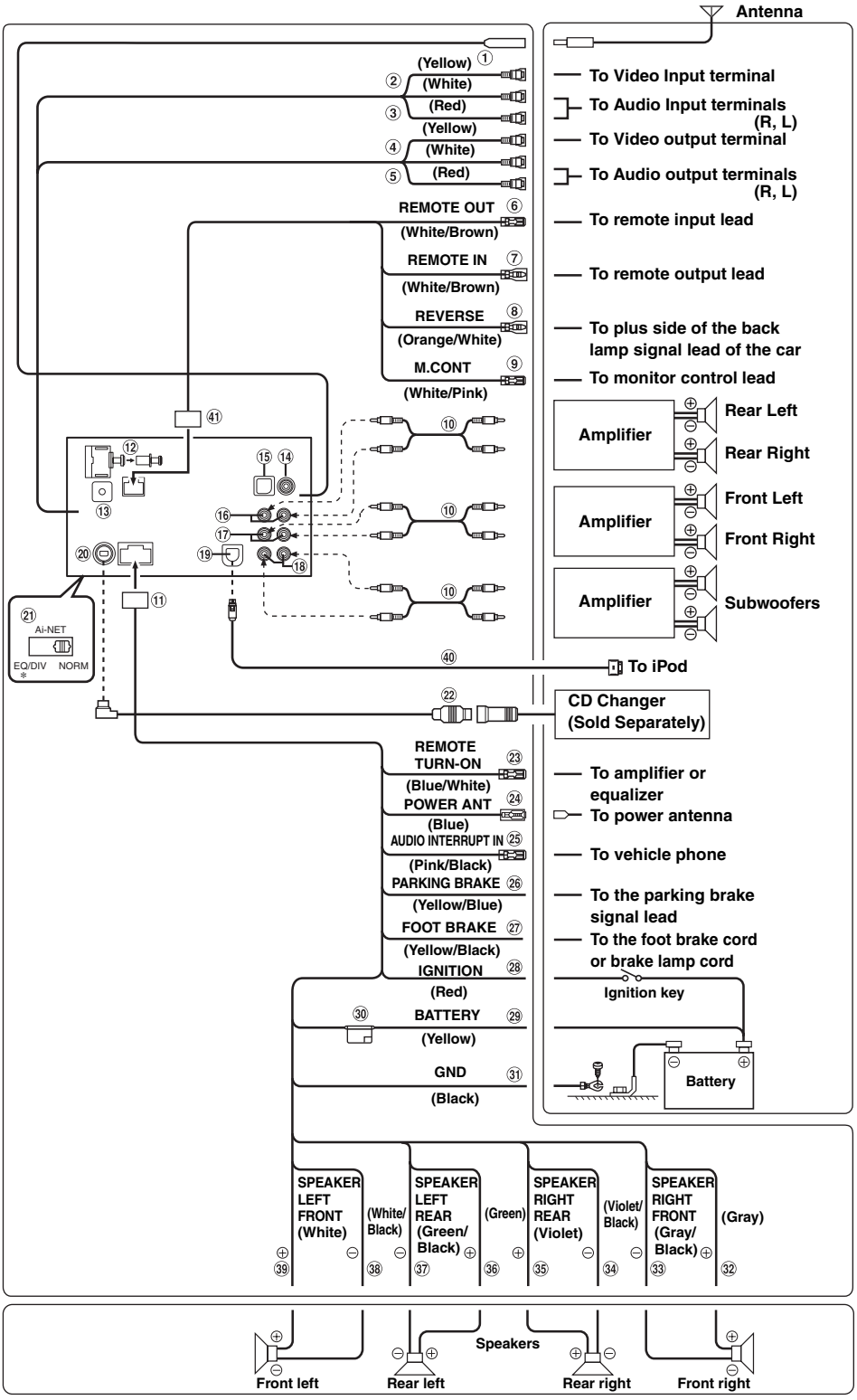


TO CONTENTS

System Connections

(North American Model Only)

Connections



• *Set the system switch to "NORM" when only a changer is connected (when the Ai-NET compatible equalizer is not used).*

* *The label is attached on the button of the unit.*

TO CONTENTS

① **Antenna Receptacle**

② **Video Output Connector (AUX OUTPUT) (Yellow)**
Output the video.

③ **Audio Output Connectors (AUX OUTPUT)**
RED is right and WHITE is left output the audio.

④ **Video Input Connector (AUX INPUT) (Yellow)**
Input the video.

⑤ **Audio Input Connectors (AUX INPUT)**
RED is right and WHITE is left input the audio

⑥ **Remote Control Output Lead (White/Brown)**
Connect this lead to the remote control input lead. This lead outputs the controlling signals from the remote control.

⑦ **Remote Control Input Lead (White/Brown)**
Connect the external Alpine product to the remote control output lead.

⑧ **Reverse Lead (Orange/White)**
Use only when a back-up camera is connected. Connect to the plus side of the car's reverse lamp that lights when the transmission is shifted into reverse (R).
Switches the video picture to the back-up camera. This is linked with putting the car into reverse (R).

⑨ **Monitor Control Lead (White/Pink)**
Connect this to the Monitor Control Lead of the touch panel-compatible rear monitor

⑩ **RCA Extension Cable (sold separately)**

⑪ **Power Supply Connector**

⑫ **Digital Output Terminal (Optical)**
Use when combining fiber digital input compatible products.

⑬ **Steering Remote Control Interface Connector**
To steering remote control interface box.
For details about connections, consult your nearest Alpine dealer.

⑭ **CAMERA Input Terminal**
Use when connecting a back-up camera.

⑮ **RGB Input Terminal**
Connect this to the RGB output terminal of the Navigation System.

⑯ **Rear Output RCA Connectors**
RED is right and WHITE is left.

⑰ **Front Output RCA Connectors**
RED is right and WHITE is left.

⑱ **Subwoofer RCA Connectors**
RED is right and WHITE is left.

⑲ **iPod Direct Connector**
iPod control signals.
Connect this to an iPod, using the (also separately sold) FULL SPEED™ Connection Cable (KCE-422i).

⑳ **Ai-NET Connector**
Connect this to the output or input connector of another device (CD Changer, Equalizer, HD Radio™ TUNER MODULE, etc.) equipped with Ai-NET.
- *Interface adapter for iPod (KCA-420i) is not recommended for use with this product.*
- *You can input TV/video sound by connecting an optional Ai-NET/RCA Interface cable (KCA-121B) to this component.*

㉑ **System Switch**
When connecting an equalizer or divider using Ai-NET feature, place this switch in the EQ/DIV position. When no device is connected, leave the switch in the NORM position.
- *Be sure to turn the power off to the unit before changing the switch position.*

㉒ **Ai-NET Cable (Included with CD Changer)**

㉓ **Remote Turn-On Lead (Blue/White)**
Connect this lead to the remote turn-on lead of your amplifier or signal processor.

㉔ **Power Antenna Lead (Blue)**
Connect this lead to the +B terminal of your power antenna, if applicable.
- *This lead should be used only for controlling the vehicle's power antenna. Do not use this lead to turn on an amplifier or a signal processor, etc.*

㉕ **Audio Interrupt In Lead (Pink/Black)**

㉖ **Parking Brake Lead (Yellow/Blue)**
Connect this lead to the power supply side of the parking brake switch to transmit the parking brake status signals to the IVA-W200.

㉗ **Foot Brake Lead (Yellow/Black)**
Connect to the vehicle's foot brake lead or brake lamp lead.

㉘ **Switched Power Lead (Ignition) (Red)**
Connect this lead to an open terminal on the vehicle's fuse box or another unused power source which provides (+) 12V only when the ignition is turned on or in the accessory position.

㉙ **Battery Lead (Yellow)**
Connect this lead to the positive (+) post of the vehicle's battery.

㉚ **Fuse Holder (10A)**

㉛ **Ground Lead (Black)**
Connect this lead to a good chassis ground on the vehicle. Make sure the connection is made to bare metal and is securely fastened using the sheet metal screw provided.

㉜ **Right Front (+) Speaker Output Lead (Gray)**

㉝ **Right Front (–) Speaker Output Lead (Gray/Black)**

㉞ **Right Rear (–) Speaker Output Lead (Violet/Black)**

㉟ **Right Rear (+) Speaker Output Lead (Violet)**

㊱ **Left Rear (+) Speaker Output Lead (Green)**

㊲ **Left Rear (–) Speaker Output Lead (Green/Black)**

㊳ **Left Front (–) Speaker Output Lead (White/Black)**

㊴ **Left Front (+) Speaker Output Lead (White)**

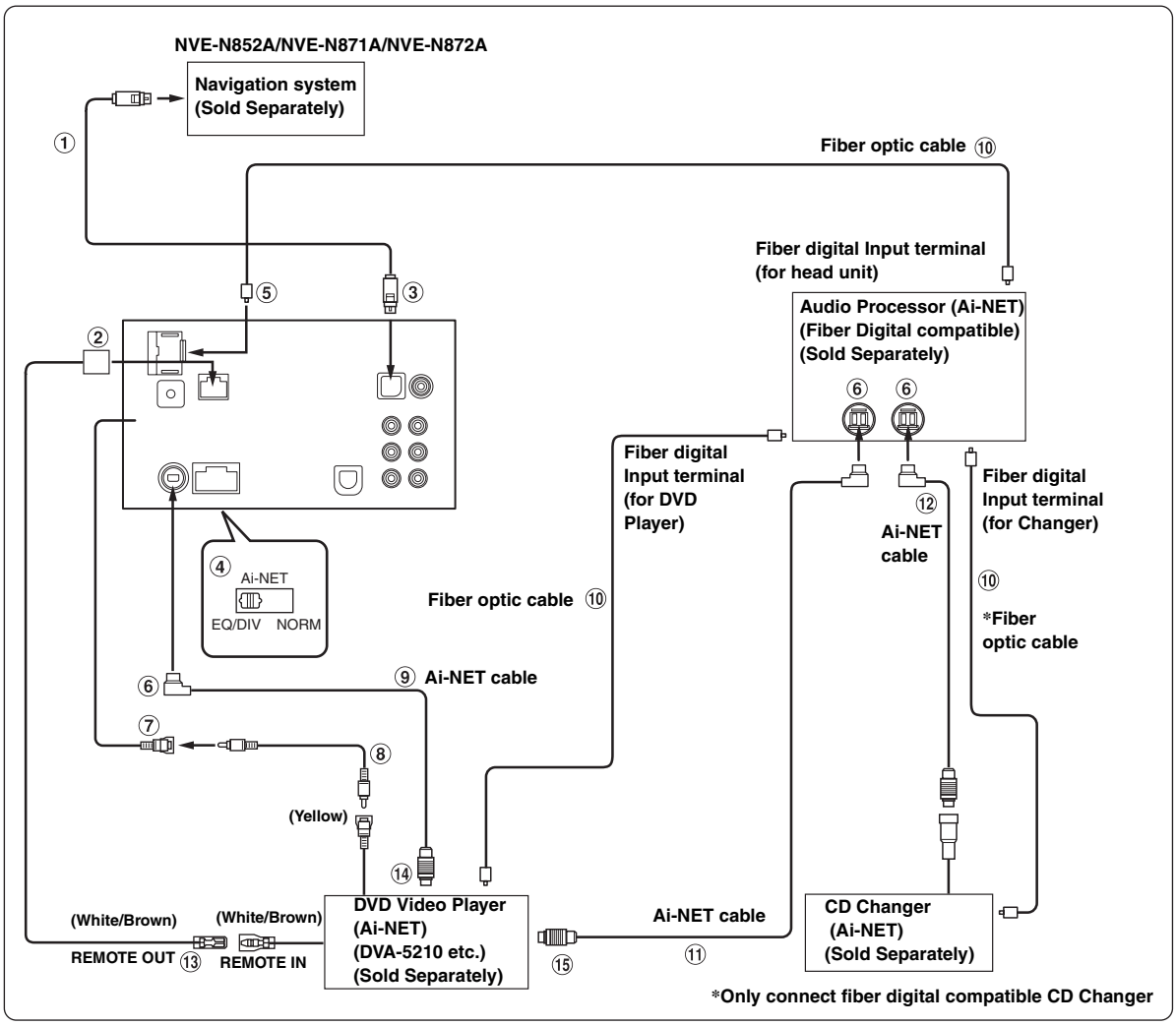
㊵ **FULL SPEED™ Connection Cable (KCE-422i) (sold separately)**

㊶ **Remote IN/OUT Connector**

TO CONTENTS

System Example

Connect the Ai-NET compatible audio processor (Fiber digital compatible), Navigation system, DVD player and changer.



- *When the fiber optic compatible product is connected, it is necessary to set the mode of this unit.*
- *When the NVA-N751AS is connected for the Navigation System, use the RGB conversion cable KWE-503N (Sold separately).*

Please observe the following when using Fiber Optic Cable.

- *Do not coil the Fiber Optic Cable smaller than a 30 mm radius.*
- *Do not place anything on top of the Fiber Optic Cable.*
- *Be careful not to bend the Fiber Optic Cable at a sharp angle.*

TO CONTENTS

① **RGB Cable (Included with NVE-N852A/NVE-N872A, not included with NVE-N871A)**

② **Remote IN/OUT Connector**

③ **RGB Input Terminal**
Connect this to the RGB output terminal of the Navigation System.

④ **System Switch**
When connecting an equalizer or divider using Ai-NET feature, place this switch in the EQ/DIV position. When no device is connected, leave the switch in the NORM position.
- *Be sure to turn the power off to the unit before changing the switch position.*

⑤ **Digital Output Terminal**

⑥ **Ai-NET Connector**
Connect this to the output or input connector of other product equipped with Ai-NET.

⑦ **AUX Video Input Terminal**
Connect the video output lead of a DVD video player or DVD changer to this terminal.

⑧ **RCA Extension Cable (Included with DVD video player)**

⑨ **Ai-NET Cable (Included with DVD video player)**

⑩ **Fiber Optic Cable (Sold Separately)**

⑪ **Ai-NET Cable (Included with Audio Processor)**

⑫ **Ai-NET Cable (Included with CD Changer)**

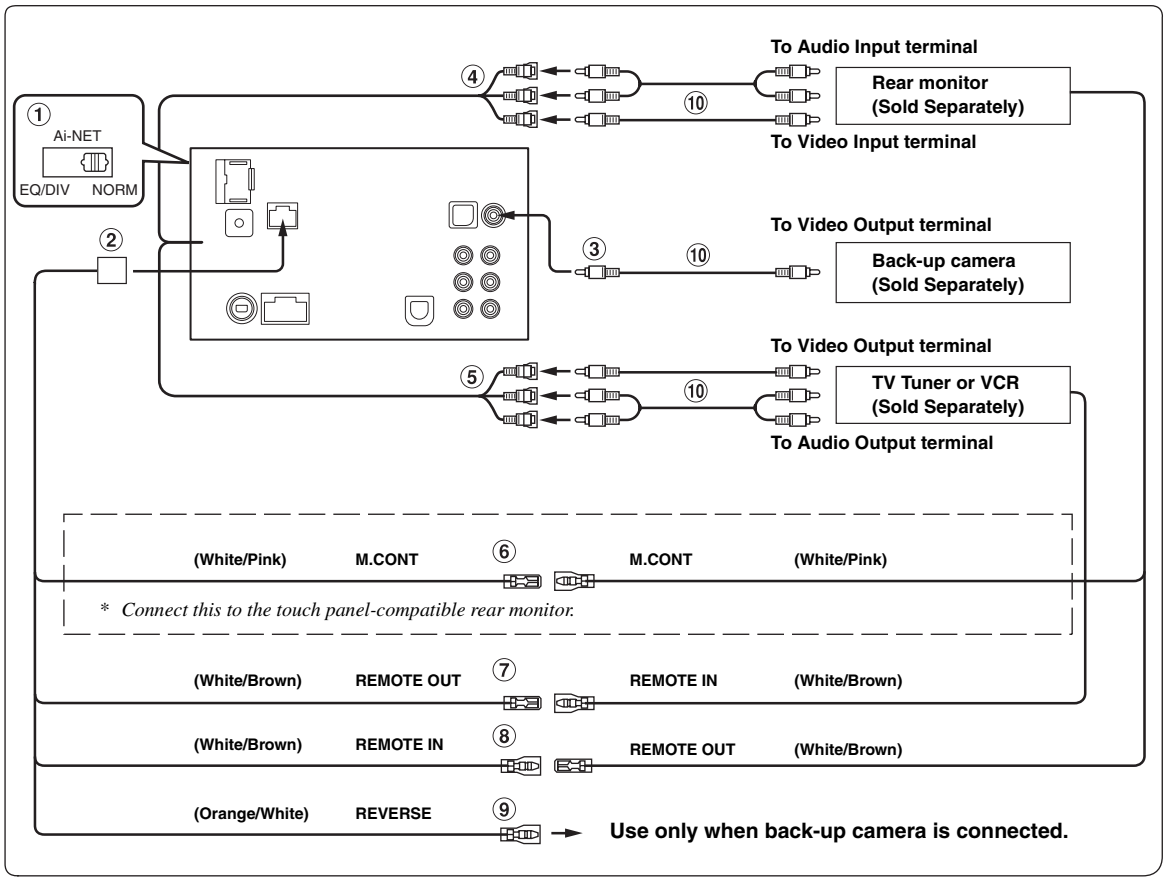
⑬ **Remote Control Output Lead (White/Brown)**
Connect this lead to the remote control input lead. This lead outputs the controlling signals from the remote control.

⑭ **To Ai-NET Connector (Gray)**

⑮ **To Ai-NET Connector (Black)**

TO CONTENTS

When Connecting External Equipment



① **System Switch**
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- *Be sure to turn the power off to the unit before changing the switch position.*

② **Remote IN/OUT Connector**

③ **CAMERA Input Terminal**
Use when connecting a back-up camera.

④ **AUX Video/Audio Output Terminal**
Use when connecting an optional monitor etc.

⑤ **AUX Video/Audio Input Terminal**

⑥ **Monitor Control Lead (White/Pink)**
Connect this to the Monitor Control Lead of the touch panel-compatible rear monitor.

⑦ **Remote Control Output Lead (White/Brown)**
Connect this lead to the remote control input lead. This lead outputs the controlling signals from the remote control.

⑧ **Remote Control Input Lead (White/Brown)**

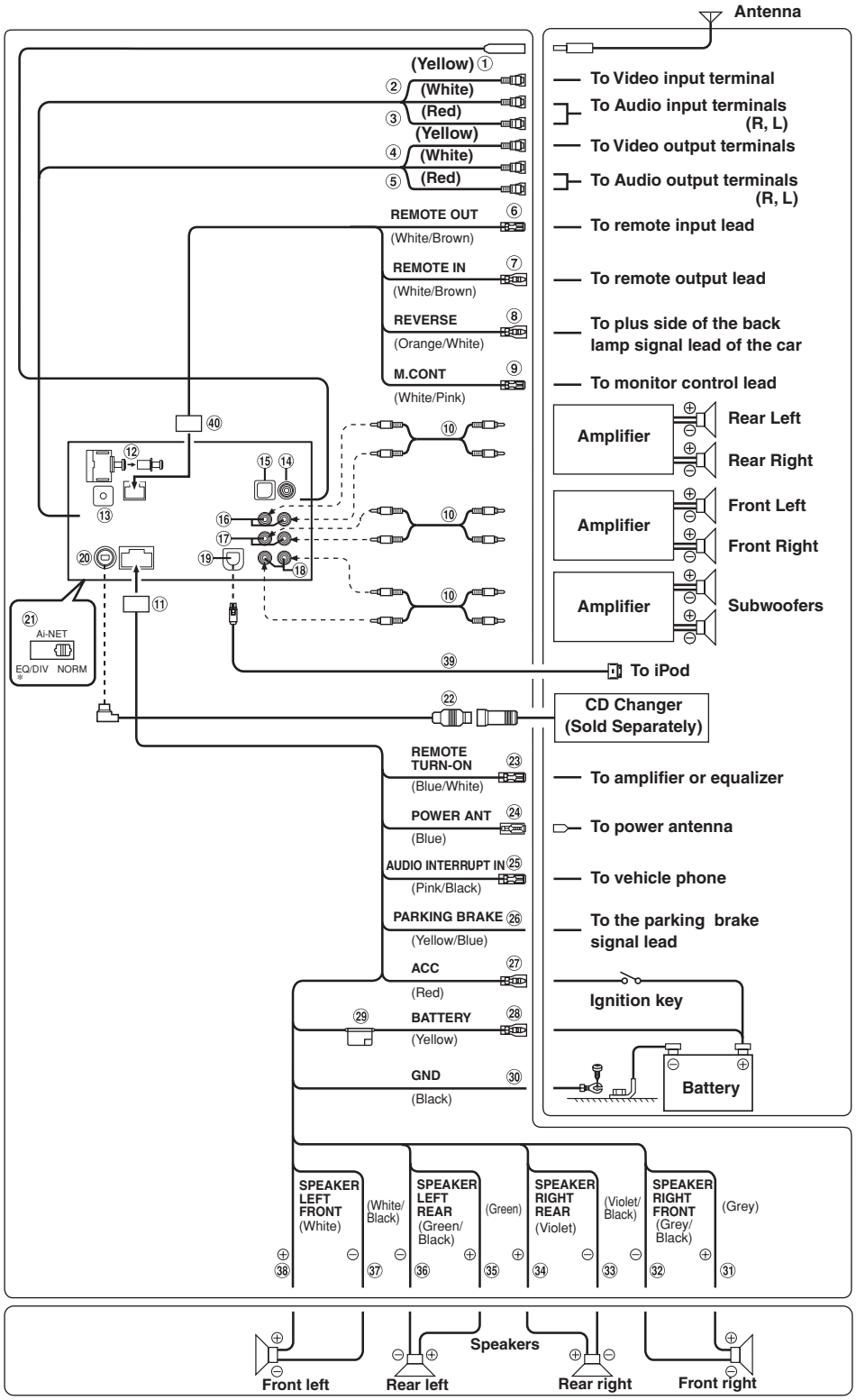
⑨ **Reverse Lead (Orange/White)**
Connect to the plus side of the car's reverse lamp which lights when the transmission is shifted into reverse (R). Switches the video picture to the back-up camera. This is linked to putting the car into reverse (R).

⑩ **RCA Extension Cable (Sold separately)**

TO CONTENTS

(General Foreign Model Only)

Connections



- *Set the system switch to "NORM" when only a changer is connected (when the Ai-NET compatible equalizer is not used).*

* *The label is attached on the button of the unit.*

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① **Antenna Receptacle**

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Input the video.

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RED is right and WHITE is left input the audio

⑥ **Remote Control Output Lead (White/Brown)**
Connect this lead to the remote control input lead. This lead outputs the controlling signals from the remote control.

⑦ **Remote Control Input Lead (White/Brown)**
Connect the external Alpine product to the remote control output lead.

⑧ **Reverse Lead (Orange/White)**
Use only when a back-up camera is connected. Connect to the plus side of the car's reverse lamp that lights when the transmission is shifted into reverse (R).
Switches the video picture to the back-up camera. This is linked with putting the car into reverse (R).

⑨ **Monitor Control Lead (White/Pink)**
Connect this to the Monitor Control Lead of the touch panelcompatible rear monitor.

⑩ **RCA Extension Cable (sold separately)**

⑪ **Power Supply Connector**

⑫ **Digital Output Terminal (Optical)**
Use when combining fiber digital input compatible products.

⑬ **Steering Remote Control Interface Connector**
To steering remote control interface box.
For details about connections, consult your nearest Alpine dealer.

⑭ **CAMERA Input Terminal**
Use when connecting a back-up camera.

⑮ **RGB Input Terminal**
Connect this to the RGB output terminal of the Navigation System.

⑯ **Rear Output RCA Connectors**
RED is right and WHITE is left.

⑰ **Front Output RCA Connectors**
RED is right and WHITE is left.

⑱ **Subwoofer RCA Connectors**
RED is right and WHITE is left.

⑲ **iPod Direct Connector**
iPod control signals.
Connect this to an iPod, using the (also separately sold) FULL SPEED™ Connection Cable (KCE-422i).

⑳ **Ai-NET Connector**
Connect this to the output or input connector of another device (CD Changer, Equalizer, HD Radio™ TUNER MODULE, etc.) equipped with Ai-NET.
- *Interface adapter for iPod (KCA-420i) is not recommended for use with this product.*
- *You can input TV/video sound by connecting an optional Ai-NET/RCA Interface cable (KCA-121B) to this component.*

㉑ **System Switch**
When connecting an equalizer or divider using Ai-NET feature, place this switch in the EQ/DIV position. When no device is connected, leave the switch in the NORM position.
- *Be sure to turn the power off to the unit before changing the switch position.*

㉒ **Ai-NET Cable (Included with CD Changer)**

㉓ **Remote Turn-On Lead (Blue/White)**
Connect this lead to the remote turn-on lead of your amplifier or signal processor.

㉔ **Power Antenna Lead (Blue)**
Connect this lead to the +B terminal of your power antenna, if applicable.
- *This lead should be used only for controlling the vehicle's power antenna. Do not use this lead to turn on an amplifier or a signal processor, etc.*

㉕ **Audio Interrupt In Lead (Pink/Black)**

㉖ **Parking Brake Lead (Yellow/Blue)**
Connect this lead to the power supply side of the parking brake switch to transmit the parking brake status signals to the IVA-W200E.

㉗ **Switched Power Lead (Ignition) (Red)**
Connect this lead to an open terminal on the vehicle's fuse box or another unused power source which provides (+) 12V only when the ignition is turned on or in the accessory position.

㉘ **Battery Lead (Yellow)**
Connect this lead to the positive (+) post of the vehicle's battery.

㉙ **Fuse Holder (10A)**

㉚ **Ground Lead (Black)**
Connect this lead to a good chassis ground on the vehicle. Make sure the connection is made to bare metal and is securely fastened using the sheet metal screw provided.

㉛ **Right Front (+) Speaker Output Lead (Grey)**

㉜ **Right Front (–) Speaker Output Lead (Grey/Black)**

㉝ **Right Rear (–) Speaker Output Lead (Violet/Black)**

㉞ **Right Rear (+) Speaker Output Lead (Violet)**

㉟ **Left Rear (+) Speaker Output Lead (Green)**

㊱ **Left Rear (–) Speaker Output Lead (Green/Black)**

㊲ **Left Front (–) Speaker Output Lead (White/Black)**

㊳ **Left Front (+) Speaker Output Lead (White)**

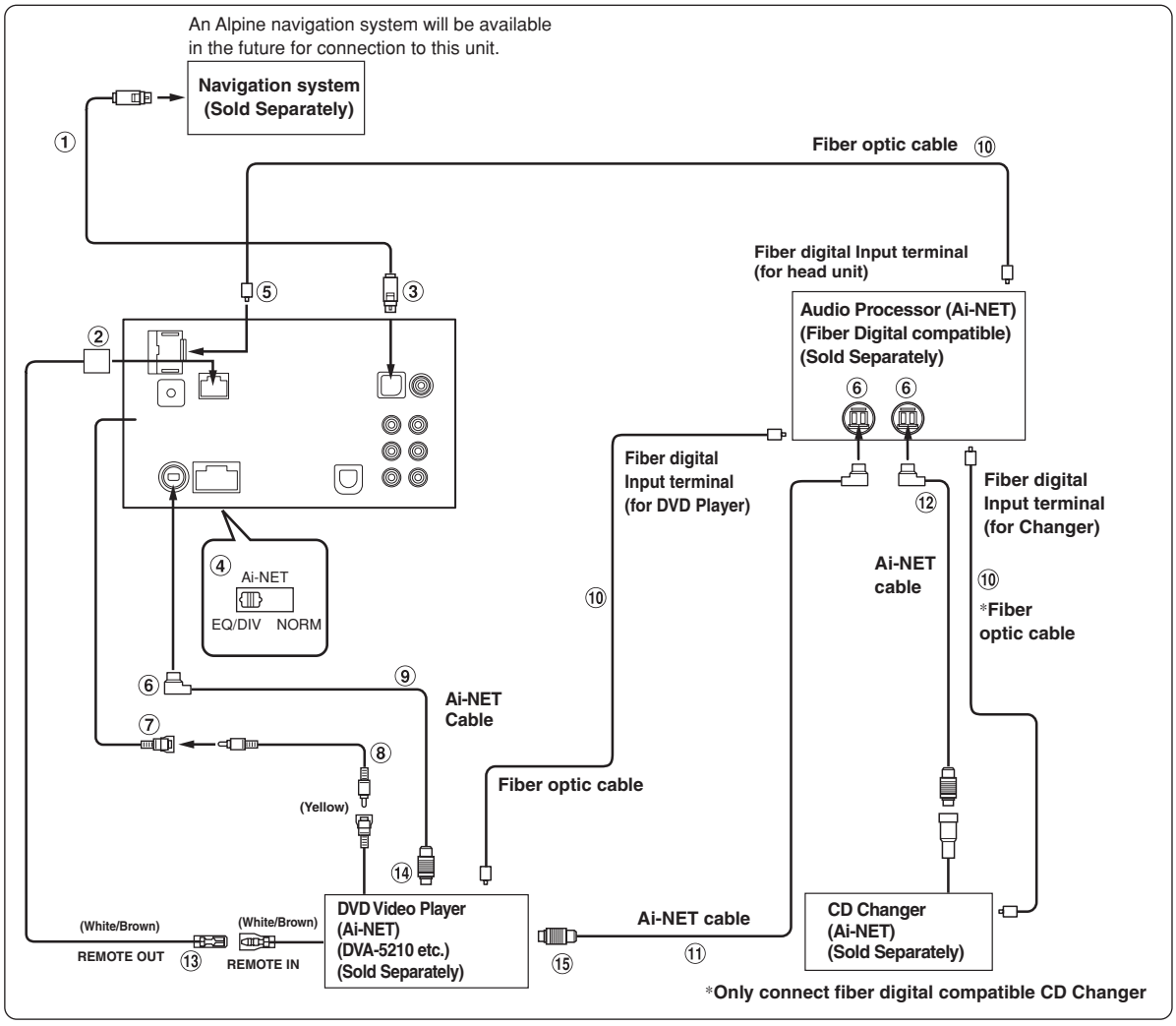
㊴ **FULL SPEED™ Connection Cable (KCE-422i) (sold separately)**

㊵ **Remote IN/OUT Connector**

TO CONTENTS

System Example

Connect the Ai-NET compatible audio processor (Fiber digital compatible), Navigation system, DVD player and changer.


An Alpine navigation system will be available in the future for connection to this unit.
Navigation system (Sold Separately)
Fiber optic cable
Fiber digital Input terminal (for head unit)
Audio Processor (Ai-NET) (Fiber Digital compatible) (Sold Separately)
Fiber digital Input terminal (for DVD Player)
Fiber digital Input terminal (for Changer)
Ai-NET cable
*Fiber optic cable
Ai-NET
EQ/DIV NORM
Ai-NET Cable
Fiber optic cable
(Yellow)
(White/Brown)
REMOTE OUT
(White/Brown)
REMOTE IN
DVD Video Player (Ai-NET) (DVA-5210 etc.) (Sold Separately)
Ai-NET cable
CD Changer (Ai-NET) (Sold Separately)
*Only connect fiber digital compatible CD Changer

- *When the fiber optic compatible product is connected, it is necessary to set the mode of this unit.*

Please observe the following when using Fiber Optic Cable.

- *Do not coil the Fiber Optic Cable smaller than a 30 mm radius.*
- *Do not place anything on top of the Fiber Optic Cable.*
- *Be careful not to bend the Fiber Optic Cable at a sharp angle.*

TO CONTENTS

① **RGB Cable (Included with Navigation or sold separately)**

② **Remote IN/OUT Connector**

③ **RGB Input Terminal**
Connect this to the RGB output terminal of the Navigation System.

④ **System Switch**
When connecting an equalizer or divider using Ai-NET feature, place this switch in the EQ/DIV position. When no device is connected, leave the switch in the NORM position.

- *Be sure to turn the power off to the unit before changing the switch position.*

⑤ **Digital Output Terminal**

⑥ **Ai-NET Connector**
Connect this to the output or input connector of other product equipped with Ai-NET.

⑦ **AUX Video Input Terminal**
Connect the video output lead of a DVD video player or DVD changer to this terminal.

⑧ **RCA Extension Cable (Included with DVD video player)**

⑨ **Ai-NET Cable (Included with DVD video player)**

⑩ **Fiber optic Cable (Sold Separately)**

⑪ **Ai-NET Cable (Included with Audio processor)**

⑫ **Ai-NET Cable (Included with CD Changer)**

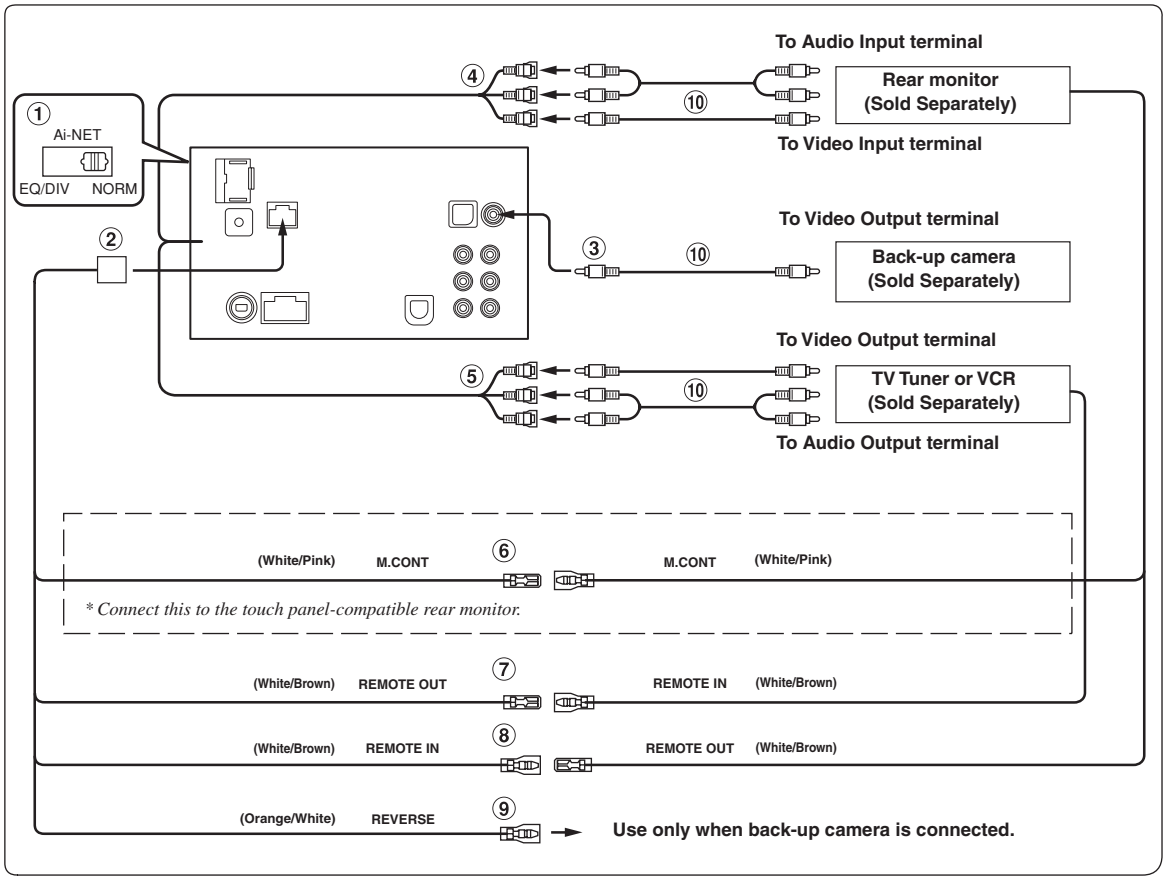
⑬ **Remote Control Output Lead (White/Brown)**
Connect this lead to the remote control input lead. This lead outputs the controlling signals from the remote control.

⑭ **To Ai-NET Connector (Grey)**

⑮ **To Ai-NET Connector (Black)**

TO CONTENTS

When Connecting External Equipment



① **System Switch**
When connecting an equalizer or divider using Ai-NET feature, place this switch in the EQ/DIV position. When no device is connected, leave the switch in the NORM position.

- *Be sure to turn the power off to the unit before changing the switch position.*

② **Remote IN/OUT Connector**

③ **CAMERA Input Terminal**
Use when connecting a back-up camera.

④ **AUX Video/Audio Output Terminal**
Use when connecting an optional monitor etc.

⑤ **AUX Video/Audio Input Terminal**

⑥ **Monitor Control Lead (White/Pink)**
Connect this to the Monitor Control Lead of the touch panel-compatible rear monitor.

⑦ **Remote Control Output Lead (White/Brown)**
Connect this lead to the remote control input lead. This lead outputs the controlling signals from the remote control.

⑧ **Remote Control Input Lead (White/Brown)**

⑨ **Reverse Lead (Orange/White)**
Connect to the plus side of the car's reverse lamp which lights when the transmission is shifted into reverse (R). Switches the video picture to the back-up camera. This is linked to putting the car into reverse (R).

⑩ **RCA Extension Cable (Sold separately)**

TO CONTENTS

Specifications

< MONITOR SECTION >

Display System	Transparent type TN LCD
Drive System	TFT active matrix
Screen Size	6.5 inch
Active Display Area (H x V)	143.4 x 79.3mm
Display Resolution (H x V)	400 x 3(RGB) x 234dots
Dot Pitch (H x V)	0.1195 x 0.3389mm
Color Filter Geometry	R, G, B Vertical Stripe
Display Mode	Normally White
Display Color	Full Color
Backlight	Cold cathode fluorescent tube

< FM RADIO >

Intermediate Frequency	10.7±0.1MHz
Frequency Range	87.7 to 107.9MHz (*1) 87.5 to 108.0MHz (*2)
Usable Sensitivity (3% Dist., Mono, at 98.1MHz)	20.2dBf
Quieting Sensitivity (50dB S/N, Mono, at 98.1MHz)	20.2dBf
-3dB Limiting Sensitivity (at 98.1MHz)	20.2dBf
Residual Noise (Ref. 400Hz, at 98.1MHz)	30±10dB
S/N Ratio (at 98.1MHz)	Stereo : 55dB Mono : 60dB
Image Rejection (at 106.1MHz)	50dB
IF Rejection (at 90.1MHz)	50dB
Distortion (Input 60dBu, at 98.1MHz)	1.0%
Frequency Response (Ref. 400Hz, at 98.1MHz)	100Hz : 0±3dB 10kHz : -14±3dB (*1) 10kHz : -11±3dB (*2)
Stereo Separation (1kHz, at 98.1MHz)	20dB

< AM RADIO >

Intermediate Frequency	1st : 10.7MHz 2nd : 450kHz
Frequency Range	530 to 1,710kHz (*1) 531 to 1,602kHz (*2)
Usable Sensitivity (20dB S/N, at 1,000kHz(*1), 999kHz(*2))	35dB
S/N Ratio (at 1,000kHz(*1), 999kHz(*2))	44dB
Image Rejection (2nd IF, at 1,400kHz(*1), 1,404kHz(*2))	50dB
IF Rejection (2nd IF, at 600kHz(*1), 603kHz(*2))	60dB
Distortion (at 1,000kHz(*1), 999kHz(*2))	1.0%
Frequency Response (Ref. 400Hz, at 1,000kHz(*1), 999kHz(*2))	100Hz : -1 +3/-5dB 4kHz : -12 +6/-8dB

< CD/DVD SECTION >

System	Optical (DVD System)

TO CONTENTS

(CD AUDIO)

Channel Balance (1kHz, TCD-782)	0±3dB
Distortion (1kHz, TCD-782)	0.3%
Frequency Response (Ref. 1kHz, 0dB, TCD-782)	17Hz : 0±3dB 127Hz : 0±2dB 10.007kHz : 0±2dB 19.997kHz : 0±4dB
S/N Ratio (TCD-782)	85dB
Separation (1kHz, TCD-782)	55dB
De-Emphasis (Ref. 1kHz, 0dB, TCD-782)	4kHz : -20±3dB 16kHz : -20±3dB

(MP-3 AUDIO)

Channel Balance (1kHz, SCD-5100 (Folder2-128kbps))	0±3dB
Distortion (1kHz, SCD-5100 (Folder2-128kbps))	0.3%
Frequency Response (Ref. 1kHz, 0dB, SCD-5100 (Folder2-128kbps))	17Hz : 0±3dB 127Hz : 0±2dB 10.007kHz : 0±2dB 19.997kHz : 0±4dB
S/N Ratio (SCD-5100 (Folder2-128kbps))	85dB
Separation (1kHz, SCD-5100 (Folder2-128kbps))	55dB

(WMA AUDIO)

Channel Balance (1kHz, SCD-5100 (Folder7-128kbps))	0±3dB
Distortion (1kHz, SCD-5100 (Folder7-128kbps))	0.3%
Frequency Response (Ref. 1kHz, 0dB, SCD-5100 (Folder7-128kbps))	17Hz : 0±3dB 127Hz : 0±2dB 10.007kHz : 0±2dB 19.997kHz : 0±4dB
S/N Ratio (SCD-5100 (Folder7-128kbps))	85dB
Separation (1kHz, SCD-5100 (Folder7-128kbps))	55dB

(DVD-VIDEO)

***AUDIO Pre-out** (Title Number 4/Audio Stream 2/LPCM 48k)

Channel Balance (1kHz, TDV-540A (Chapter1))	0±3dB
Distortion (1kHz, TDV-540A (Chapter1))	0.3%
Frequency Response (Ref. 1kHz, TDV-540A (Chapter1))	Chapter6 : 17Hz : 0±4dB Chapter8 : 127Hz : 0±2dB Chapter13 : 10.007kHz : 0±2dB Chapter15 : 19.997kHz : 0±4dB
S/N Ratio (TDV-540A (Chapter1&2))	80dB
Separation (1kHz, TDV-540A (Chapter3&4))	65dB

***AUDIO AUX-OUT** (10k ohm resistive load, Title Number 4/Audio Stream 3/LPCM 96k)

Output Level (1kHz, TDV-540A (Chapter1))	1.2±0.2Vrms
Channel Balance (1kHz, TDV-540A (Chapter1))	0±3dB
Distortion (1kHz, TDV-540A (Chapter1))	0.3%
Frequency Response (Ref. 1kHz, TDV-540A (Chapter1))	Chapter6 : 17Hz : -3±3dB Chapter8 : 127Hz : 0±2dB Chapter15 : 19.997kHz : -2±2dB
S/N Ratio (TDV-540A (Chapter1&2))	80dB
Separation (1kHz, TDV-540A (Chapter3&4))	65dB

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***VIDEO AUX-OUT** (Title Number 2/NTSC/Terminating Resistance : 75 ohm (*1)) (PAL/Terminating Resistance : 75 ohm (*2))

Luminance Level NTSC : (TDV-540A, Chapter6, White100%) (*1) PAL : (V-509, Title4/Chapter3, White100%, SUBT.OFF) (*2)	1±0.15V
Luminance Frequency Response NTSC : (6MHz, TDV-540A, Chapter8, MultiBurst60%) (*1) PAL : (6MHz, V-509, Title5/Chapter2, MultiBurst60%, SUBT.OFF) (*2)	-2±2dB
Luminance Signal S/N Ratio NTSC : (TDV-540A, Chapter4, White50%) (*1) PAL : (V-509, Title4/Chapter4, Gray50%, SUBT.OFF) (*2)	50dB

(VIDEO-CD)

***AUDIO** (MPEG Audio)

Channel Balance (1kHz, TVD-581A (Track1))	0±3dB
Distortion (1kHz, TVD-581A (Track1))	0.3%
Frequency Response (Ref. 1kHz, TVD-581A (Track1))	Track7 : 21Hz : 0±4dB Track8 : 127Hz : 0±2dB Track10 : 10.007kHz : 0±2dB Track13 : 19.997kHz : 0±4dB
S/N Ratio (TVD-581A (Track1&2))	80dB
Separation (1kHz, TVD-581A (Track3&4))	65dB

***VIDEO** (NTSC/Terminating Resistance : 75 ohm (*1)) (PAL/Terminating Resistance : 75 ohm (*2))

Luminance Level NTSC : (TVD-581A, Track16, White100%) PAL : (HLV-402, Track22, White100%)	1±0.15V
Luminance Frequency Response NTSC : (2MHz, TVD-581A, Track8, MultiBurst50%) PAL : (2MHz, HLV-402, Track21, MultiBurst)	-2±2dB
Luminance Signal S/N Ratio NTSC : (TVD-581A, Track17, Gray50%) PAL : (HLV-402, Track20, Gray50%)	50dB

(DVD-AUDIO)

Channel Balance (997Hz, V-612 (Track1 Lf,Rf/48kHz,24bit))	0±3dB
Distortion (997Hz, V-612)	Track1 Lf,Rf/48kHz,24bit : 0.3% Track4 Lf,Rf/96kHz,24bit : 0.3% Track7 Lf,Rf/192kHz,24bit : 0.3%
Frequency Response (Ref. 997Hz, V-612 (Track20 Lf,Rf/192kHz,24bit))	17Hz (Track22 Lf,Rf/192kHz,24bit) : 0±3dB 127Hz (Track21 Lf,Rf/192kHz,24bit) : 0±2dB 10.007kHz (Track18 Lf,Rf/192kHz,24bit) : 0±2dB 19.997kHz (Track17 Lf,Rf/192kHz,24bit) : 0±2dB 39.997kHz (Track15 Lf,Rf/192kHz,24bit) : -4±4dB
S/N Ratio (997Hz, V-612 (Track7&9 Lf,Rf/192kHz,24bit))	80dB
Separation (997Hz, V-612 (Track25&26 Lf,Rf/192kHz,24bit))	65dB

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< DVD Deck Mechanism >

Test Disc	DVD-VIDEO : for Single layer disc valuation : ALMEDIO* TDV-520C for Dual layer disc valuation : ALMEDIO* TDV-540C DVD-AUDIO : ALMEDIO* TDA-591 DVD-R : ALMEDIO* TDV-R582W / TEAC MDVD-2101 DVD-RW : ALMEDIO* TDV-MW582W / TEAC MDVD-3101 DVD+R : ALMEDIO* TDV-PR582W DVD+RW : ALMEDIO* TDV-PM582W (* Former maker name : A-BEX, New maker name : ALMEDIO)
RF Waveform Amplitude	1.125±0.5Vp-p
Quantity of Jitter (all-T standard deviation)	Less than 14.0%
Measurement Angle Range	Front and Rear : -20°~50° Right and Left : ±20°
Laser Current	Initial value ±2mA (The initial value of laser current is indicated on the Flexible Cable.)

< Pickup >

Wave Length	DVD : 665nm CD : 785nm
Laser Power	CLASS II

< GENERAL >

Power Supply	DC14.4V
Power Output (FM 98.1MHz, Mod.1kHz, T.H.D.1%) / Impedance	17W / ch / 4 ohm
Pre Output (TCD-782 (1kHz, 0dB), T.H.D.1%) / Impedance	+6(2V) +3/-2dBV / ch / 10k ohm
Back Up Current (ACC-OFF after 1 minute)	5.5mA
Dimensions (W x H x D)	Chassis : 178 x 100 x 162.5mm Nose : 187.8 x 116 x 26.65mm
Weight	2.9kg

NOTE : (*1) : For IVA-W200 Model Only, (*2) : For IVA-W200E Model Only, Others : Common.

: Due to Continuing product improvement, specifications and designs are subject to change without notice.

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< Special DISC Playability >

Item		Use Disc	Specification
DVD	Scratch disc playability	DVD-Video : ALMEDIO* TDV-541C / TDV-521C DVD-R : ALMEDIO* TDV-R521CW DVD-RW : ALMEDIO* TDV-MW521CW DVD+R : ALMEDIO* TDV-PR521CW DVD+RW : ALMEDIO* TDV-PM521CW	More than 0.8mm
	Defects disc playability (Black dot)	DVD-Video : ALMEDIO* TDV-545C DVD-R : ALMEDIO* TDV-R525CW DVD-RW : ALMEDIO* TDV-MW525CW	More than 0.6mm
	Defects disc playability (Fingerprint)	DVD-Video : ALMEDIO* TDV-545C DVD-R : ALMEDIO* TDV-R525CW DVD-RW : ALMEDIO* TDV-MW525CW	More than ø65µm
	Vertical Deviation disc playability	DVD-Video : ALMEDIO* TDV-561C / TDV-563C DVD-R : ALMEDIO* TDV-R531CW / TDV-R533CW DVD-RW : ALMEDIO* TDV-MW531CW / TDV-MW533CW DVD+R : ALMEDIO* TDV-PR531CW / TDV-PR533CW DVD+RW : ALMEDIO* TDV-PW531CW / TDV-PW533CW	±0.2mm
	Eccentric disc playability	DVD-Video : ALMEDIO* TDV-551C / TDV-553C DVD-R : ALMEDIO* TDV-R511CW / TDV-R513CW DVD-RW : ALMEDIO* TDV-MW511CW / TDV-MW513CW DVD+R : ALMEDIO* TDV-PR511CW / TDV-PR513CW DVD+RW : ALMEDIO* TDV-PW511CW / TDV-PW513CW	50µm
	DVD-R / DVD-RW playability [Chap.1&16]	DVD-R : ALMEDIO* TDV-R582W / TEAC MDVD-2101 DVD-RW : ALMEDIO* TDV-MW582W / TEAC MDVD-3101	Reproducible
	DVD+R / DVD+RW playability [Chap.1&16]	DVD+R : ALMEDIO* TDV-PR582W DVD+RW : ALMEDIO* TDV-PW582W	Reproducible
CD-DA	Scratch disc playability	CD-DA : ALMEDIO* TCD-721 CD-R : ALMEDIO* TCD-R021W CD-RW : ALMEDIO* TCD-W021W	More than 0.8mm
	Defects disc playability (Inetrruption)	CD-DA : ALMEDIO* TCD-725B CD-R : ALMEDIO* TCD-R025W CD-RW : ALMEDIO* TCD-W025W	More than 0.5mm
	Defects disc playability (Black dot)	CD-DA : ALMEDIO* TCD-725B CD-R : ALMEDIO* TCD-R025W CD-RW : ALMEDIO* TCD-W025W	More than 0.6mm
	Defects disc playability (Fingerprint)	CD-DA : ALMEDIO* TCD-725B CD-R : ALMEDIO* TCD-R025W CD-RW : ALMEDIO* TCD-W025W	More than ø65µm
	Vertical Deviation disc playability	CD-DA : ALMEDIO* TCD-732RA CD-R : ALMEDIO* TCD-R032W CD-RW : ALMEDIO* TCD-W032W	±0.3mm
	Eccentric disc playability	CD-DA : ALMEDIO* TCD-712R / TCD-713R	140µm
		CD-R : ALMEDIO* TCD-R011W / TCD-R012W CD-RW : ALMEDIO* TCD-W011W / TCD-W012W	70µm
	CD-R playability [Track 1&23] Quantity of Jitter (3T standard deviation)	CD-R : ALMEDIO* TCD-R082LMR	Less than 9.5nsec
	CD-RW playability [Track 1&23] Quantity of Jitter (3T standard deviation)	CD-RW : ALMEDIO* TCD-W082L / TCD-W082H	Less than 9.5nsec

(* Former maker name : A-BEX, New maker name : ALMEDIO)

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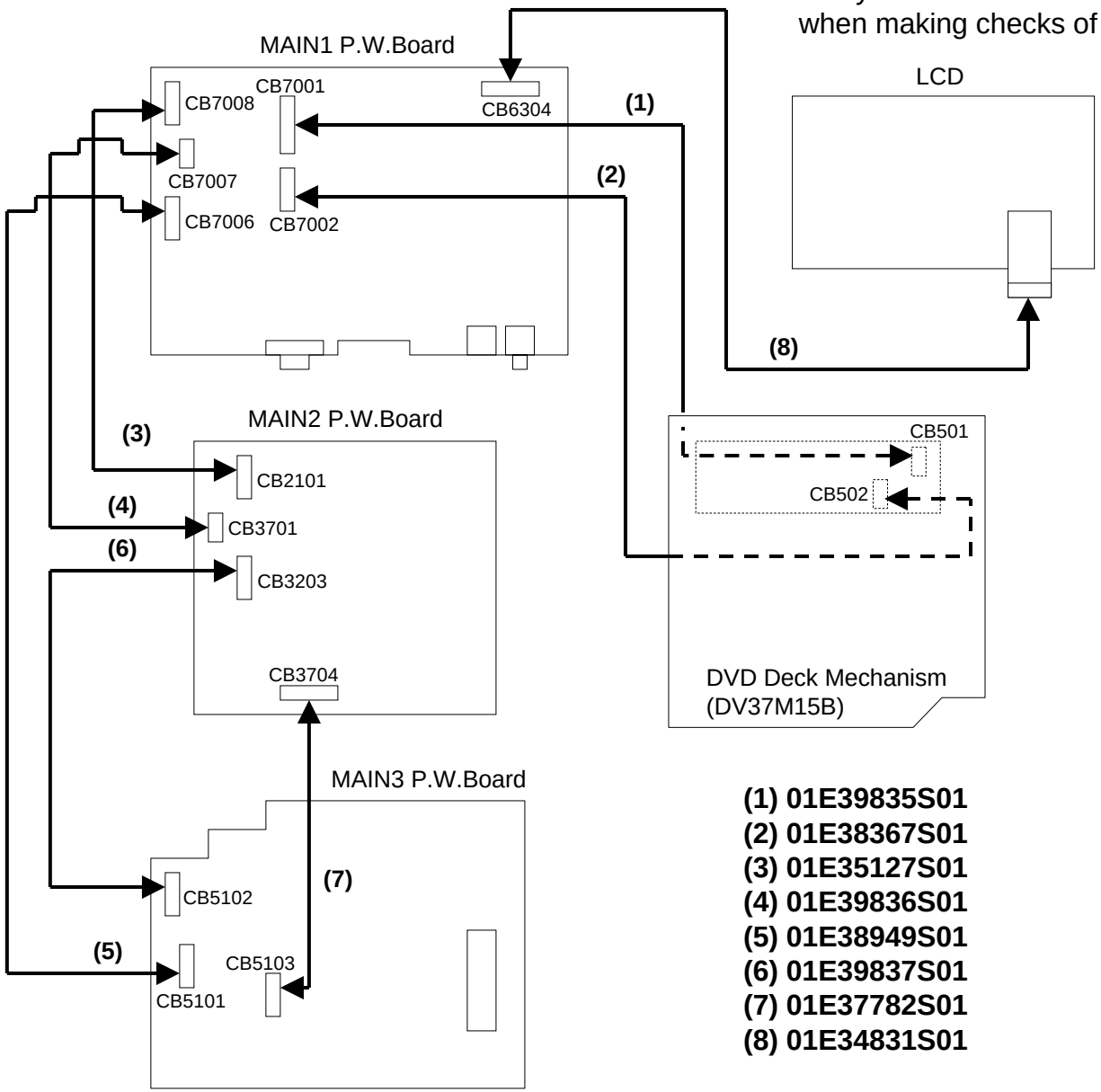
Extension Cable

*Always connect the Extension Cable
when making checks of voltage and repair.



(1) 01E39835S01
(2) 01E38367S01
(3) 01E35127S01
(4) 01E39836S01
(5) 01E38949S01
(6) 01E39837S01
(7) 01E37782S01
(8) 01E34831S01

TO CONTENTS

Adjustment Procedures

1. LCD Adjustment

(1) PARKING Deregulation Method

(IVA-W200 Model Only)

	FOOT BRAKE	PARKING BRAKE
(1)	Hi	Lo
(2)	Hi	Lo -> OPEN
(3)	Hi	OPEN -> Lo
(4)	Hi -> OPEN	Lo

(1) Connect FOOT BRAKE to Hi (14.4V) and connect PARKING BRAKE to Lo (GND).
(2) Make PARKING BRAKE un-connecting (OPEN) from Lo (GND).
(3) Connect PARKING BRAKE to Lo (GND) from un-connecting (OPEN).
(4) Make FOOT BRAKE un-connecting (OPEN) from Hi (14.4V)

(IVA-W200E Model Only)

(1) Connect PARKING BRAKE to Lo (GND).

(2) Connection

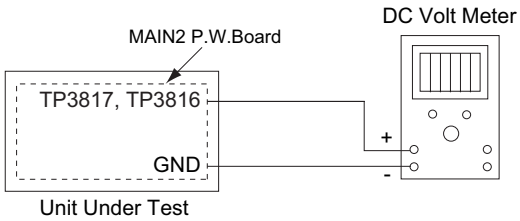


Figure 1

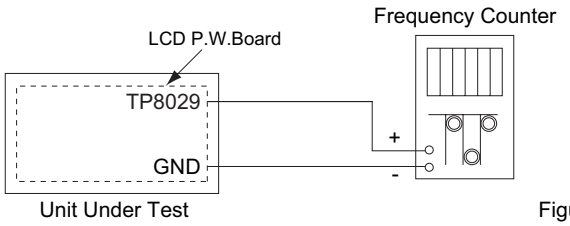


Figure 2

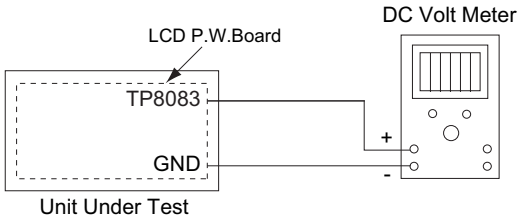


Figure 3

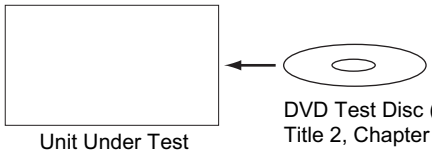


Figure 4

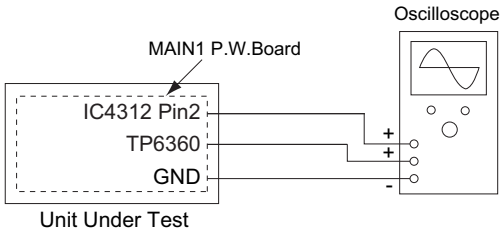
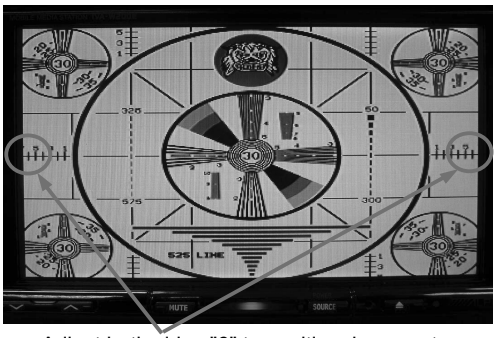


Figure 5

TO CONTENTS

(3) Adjustment Procedures

Step	Adjustment Item	Connection	Test Point / P.W.Board Coordinates	Adjustment Procedures
1	VGH Adjustment	Figure 1	TP3817 (5-B)	Adjust by VR3801 so that it may be set to 13V±0.05V.
2	VSS Adjustment	Figure 1	TP3816 (5-B)	Adjust by VR3804 so that it may be set to -16V±0.05V.
3	FreeRun Adjustment	Figure 2	TP8029 (4-F)	Adjust by VR8002 so that it may be set to 15.734kHz±0.1kHz.
4	CS Voltage Adjustment	Figure 3	TP8083 (3-A)	Adjust by VR8003 so that it may be set to -3.5V±0.05V.
5	Screen Position Adjustment	Figure 4		(1) DVD Test Disc (TDV-540A) Title 2, Chapter 16 is displayed. (WIDE MODE 1) (2) Adjust by VR8001 so that the screen becomes a center position. (Refer to Figure 6)
6	Dot Clock and H-SYNC Waveform Adjustment (IVA-W200 Model Only)	Figure 5	IC4312 Pin2 (1-E) TP6360 (4-F)	(1) Set to FM mode. (2) Observe the waveform of Dot Clock (IC4312 Pin2) and H_SYNC (TP6360). (3) Mark the 0.66V and 2.64V points of H_SYNC by the vertical line. (Refer to Figure 7) (4) Adjust by VR8001 so that the falling edge of Dot Clock comes before 0.66V line. (Refer to Figure 7) Permissible tolerance : ±5ns.
6	Dot Clock and H-SYNC Waveform Adjustment (IVA-W200E Model Only)	Figure 5	IC4312 Pin2 (1-E) TP6360 (4-F)	(1) Set to FM mode. (2) Observe the waveform of Dot Clock (IC4312 Pin2) and H_SYNC (TP6360). (3) Mark the 0.66V and 2.64V points of H_SYNC by the vertical line. (Refer to Figure 8) (4) Adjust by VR8001 so that the rising edge of Dot Clock is put together to 2.64V line. (Refer to Figure 8) Permissible tolerance : ±5ns.
7				Check the screen position after "Step6" adjustment. When having shifted, "Step5" needs to be readjusted.



Adjust both sides "6" to positional symmetry.

Figure 6

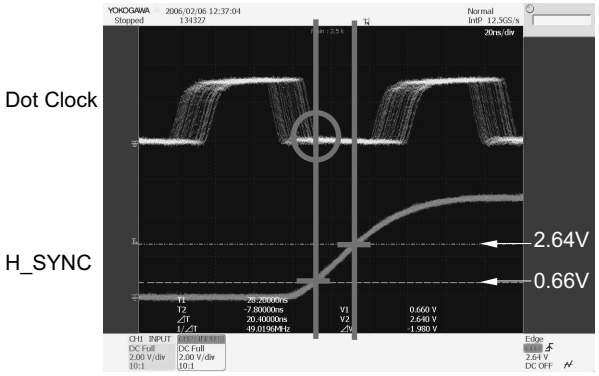


Figure 7

Figure 8

TO CONTENTS

2. RGB Adjustment

(1) PARKING Deregulation Method

(IVA-W200 Model Only)

	FOOT BRAKE	PARKING BRAKE
(1)	Hi	Lo
(2)	Hi	Lo -> OPEN
(3)	Hi	OPEN -> Lo
(4)	Hi -> OPEN	Lo

(1) Connect FOOT BRAKE to Hi (14.4V) and connect PARKING BRAKE to Lo (GND).
(2) Make PARKING BRAKE un-connecting (OPEN) from Lo (GND).
(3) Connect PARKING BRAKE to Lo (GND) from un-connecting (OPEN).
(4) Make FOOT BRAKE un-connecting (OPEN) from Hi (14.4V)

(IVA-W200E Model Only)

(1) Connect PARKING BRAKE to Lo (GND).

(2) Connection

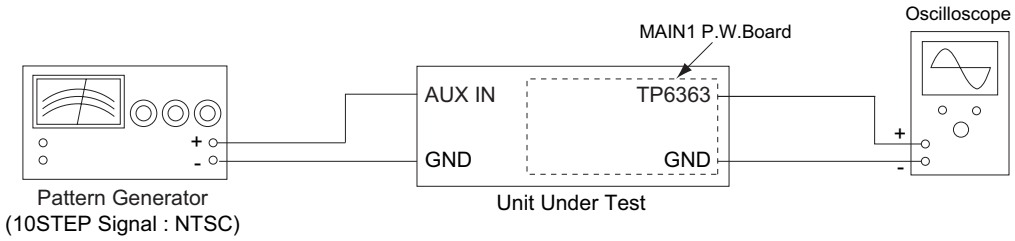


Figure 1

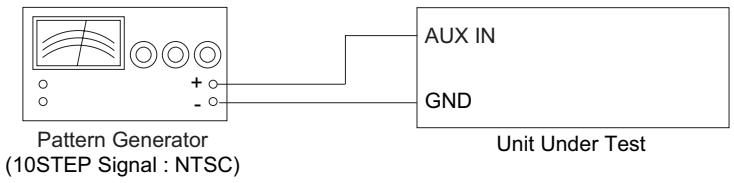


Figure 2

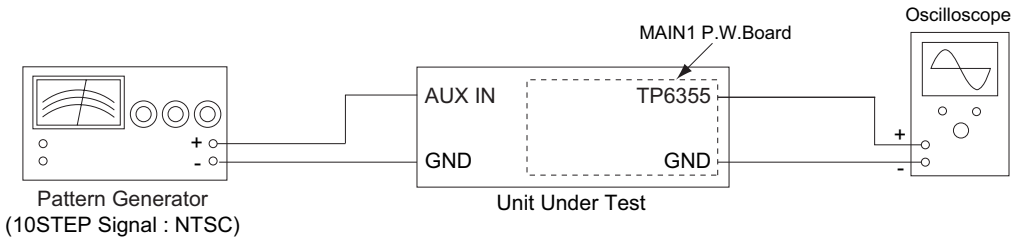


Figure 3

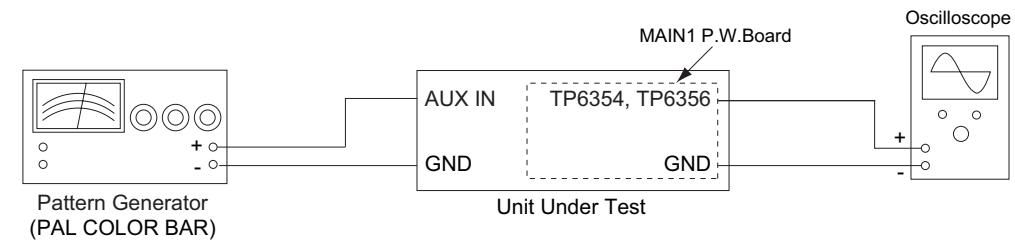


Figure 4

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(3) Adjustment Procedures

Step	Adjustment Item	Connection	Test Point / P.W.Board Coordinates	Adjustment Procedures
1				Input 10STEP signal to AUX. (input from Pattern Generator)
2				Set the product to the DIAG mode. Set to RADIO mode. ->P1/2 (P2/2) touch-key long push (2 seconds) ->SOURCE key push -> MUTE key push ->Vol. DN key push
3				Enter the VIDEO CHK mode. (P.SET3 touch-key push)
4				Enter the RGB ADJ mode. (P.SET4 touch-key push)
5				Perform RGB adjustment according to the following. Select the adjustment item by P.SET3 (Next) / P.SET4 (Back) touch-key, and change data by P.SET1 (Up) / P.SET2 (Down) touch-key.
6	GAMMA2, CONT-VIDEO, CONT-RGB2 Setting Data Change			Select GAMMA2, CONT-VIDEO, and CONT-RGB2, and change setting data as follows. GAMMA2 : Change 0X16 -> 0X10 CONT-VIDEO : Change 0XA9 -> 0XB0 CONT-RGB2 : Change 0X80 -> 0X60
7	COM AMP Adjustment	Figure 1	TP6363 (4-C)	Select COM AMP. Adjust the COM amplitude to 6.5Vp-p±0.1V. (Refer to Figure 5)
8	COM DC Adjustment	Figure 2		Select COM DC. Adjust to minimize the flicker of the monitor screen by watching.
9	BRIGHT Adjustment	Figure 3	TP6355 (4-C)	Select BRIGHT. Adjust the voltage level of B position to become the same as the voltage level of A position. (Refer to Figure 6)
10				Input PAL COLOR BAR signal to AUX. (input from Pattern Generator)
11	PAL COLOR Adjustment	Figure 4	TP6354 (4-C)	Select PAL COLOR. Adjust for White, Yellow, Magenta, and Red average levels to become equal almost. in 1 horizontal synchronous period. (Refer to Figure 7)
12	PAL TINT Adjustment	Figure 4	TP6354 (4-C)	Select PAL TINT. Adjust to agree the level that has shifted for every 1 horizontal synchronous period. (Refer to Figure 7)
13	PAL PHASE Adjustment	Figure 4	TP6356 (4-C)	Select PAL PHASE. Adjust to agree the gap of Cyan, Green, and Magenta every 1 horizontal synchronous period. (Refer to Figure 8)
14				Cancel the DIAG mode. P2/2 (Return) touch-key push

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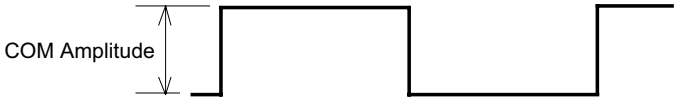
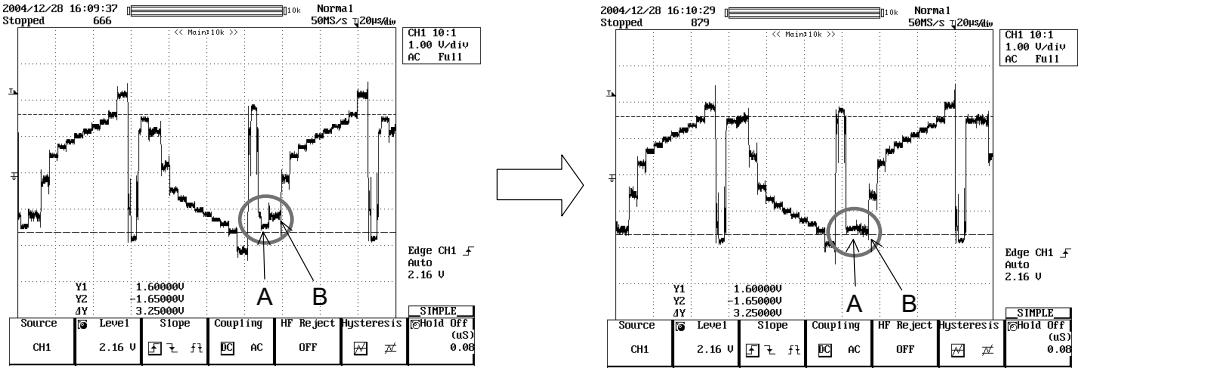
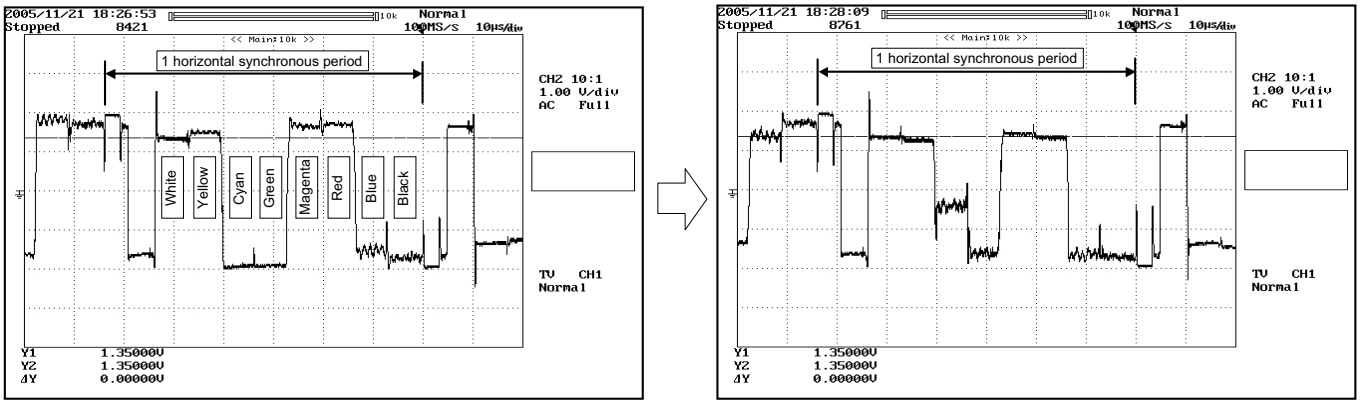


COM Signal Figure 5

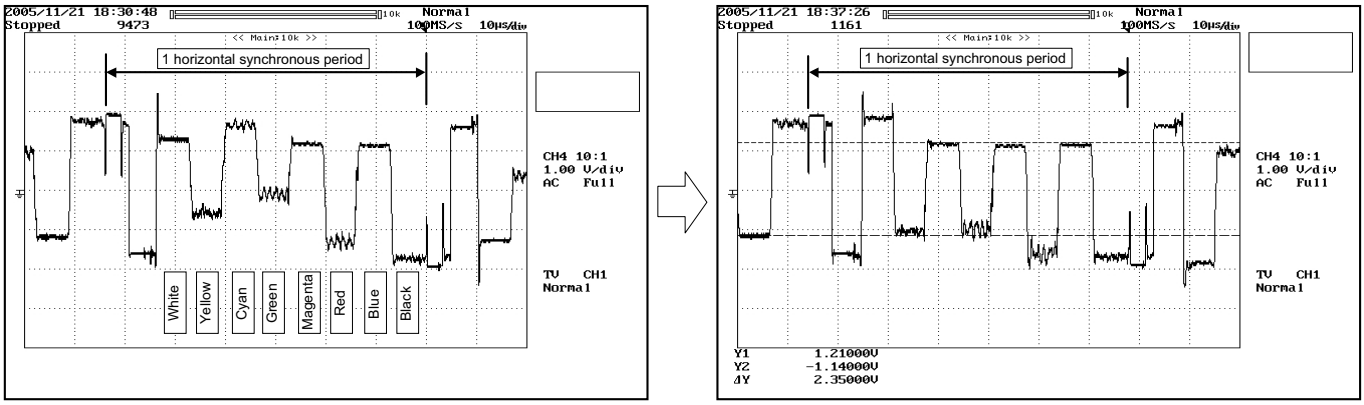


Before BRIGHT Adjustment After BRIGHT Adjustment Figure 6



Before PAL COLOR and PAL TINT Adjustment After PAL COLOR and PAL TINT Adjustment

Figure 7



Before PAL PHASE Adjustment After PAL PHASE Adjustment

Figure 8

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3. CALIBRATION Adjustment

(1) Adjustment Procedures

Step	Adjustment Item	Adjustment Procedures
1		Set the product to the DIAG mode. Set to RADIO mode. -> P1/2 (P2/2) touch-key long push (2 seconds) -> SOURCE key push -> MUTE key push -> Vol. DN key push
2		Enter the TOUCH mode. (MEMORY touch-key push)
3		Enter the CALIBRATION mode. (P.SET4 touch-key push)
4	Calibration Adjustment	(1) Push correctly the center of the Calibration Touch Key displayed on the screen lower left. (Refer to Figure 1) (2) Push correctly the center of the Calibration Touch Key displayed on the screen upper right. (Refer to Figure 2)
5		Cancel the DIAG mode. P2/2 (Return) touch-key push

Figure 1

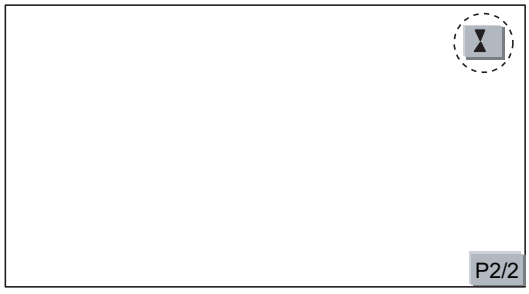

Figure 2

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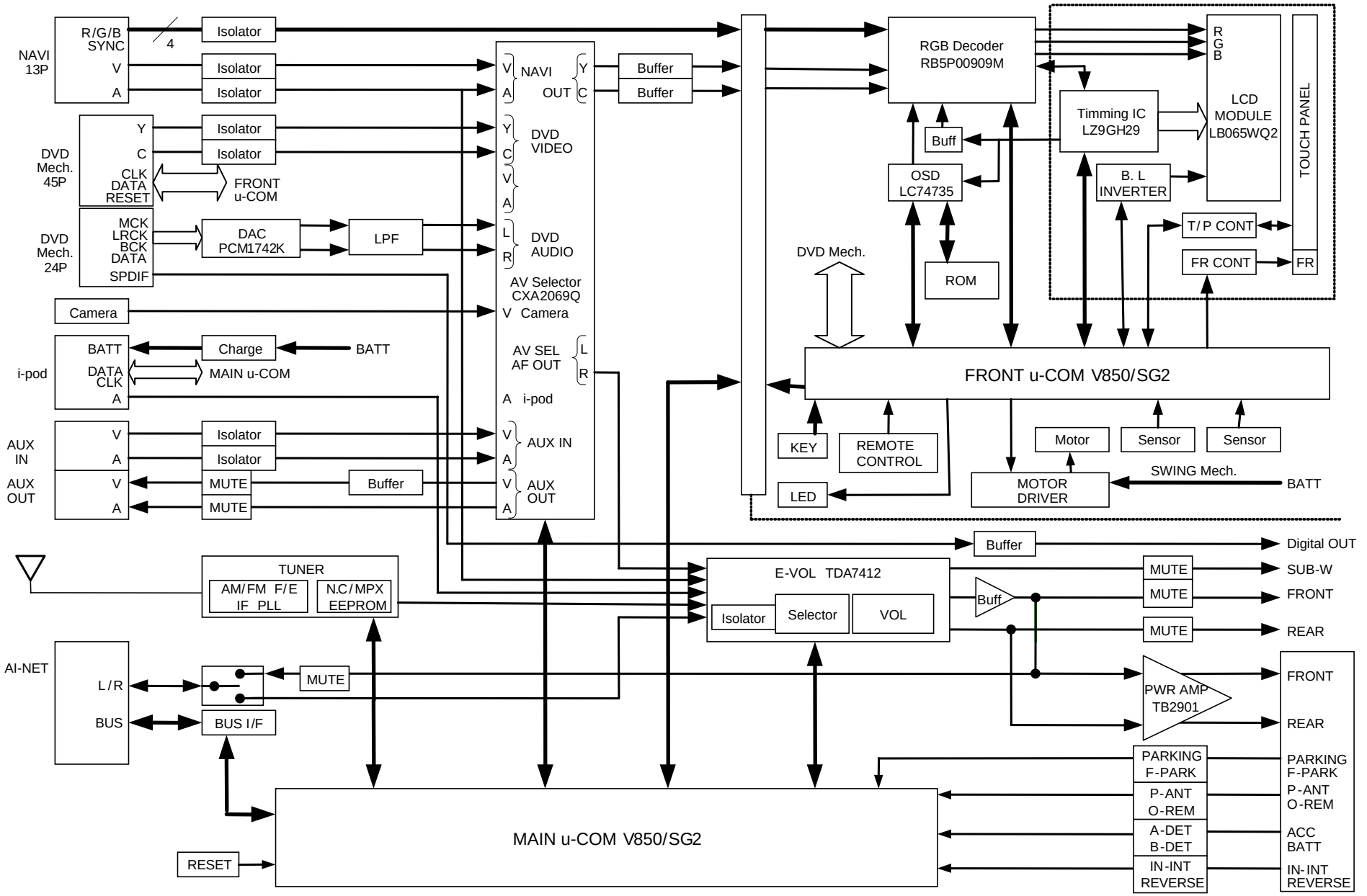
Block Diagram <VISUAL/AUDIO/SYSTEM>



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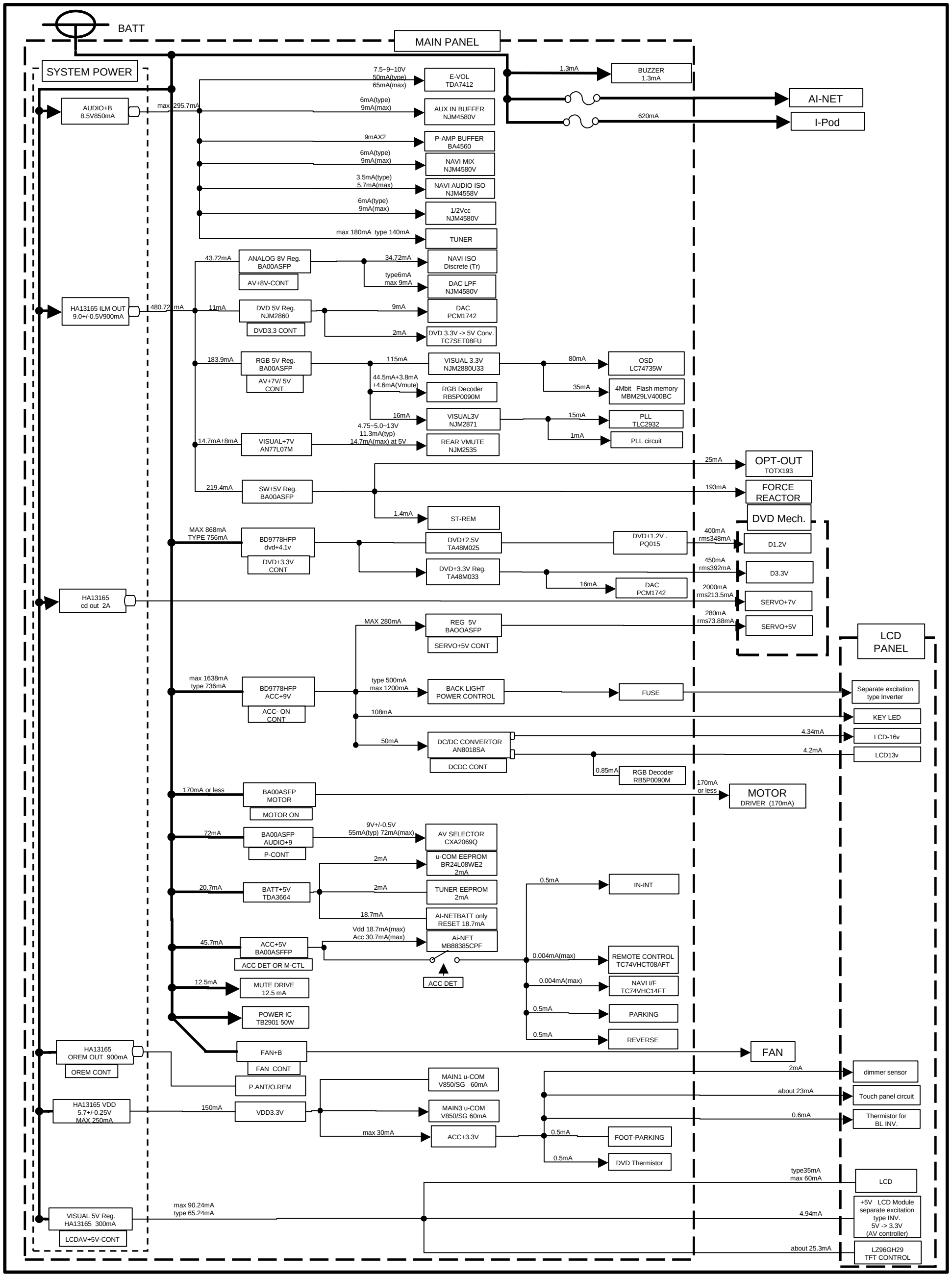
Block Diagram <POWER SUPPLY>



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Parts Layout on P.W.Boards and Wiring Diagram(1/9)

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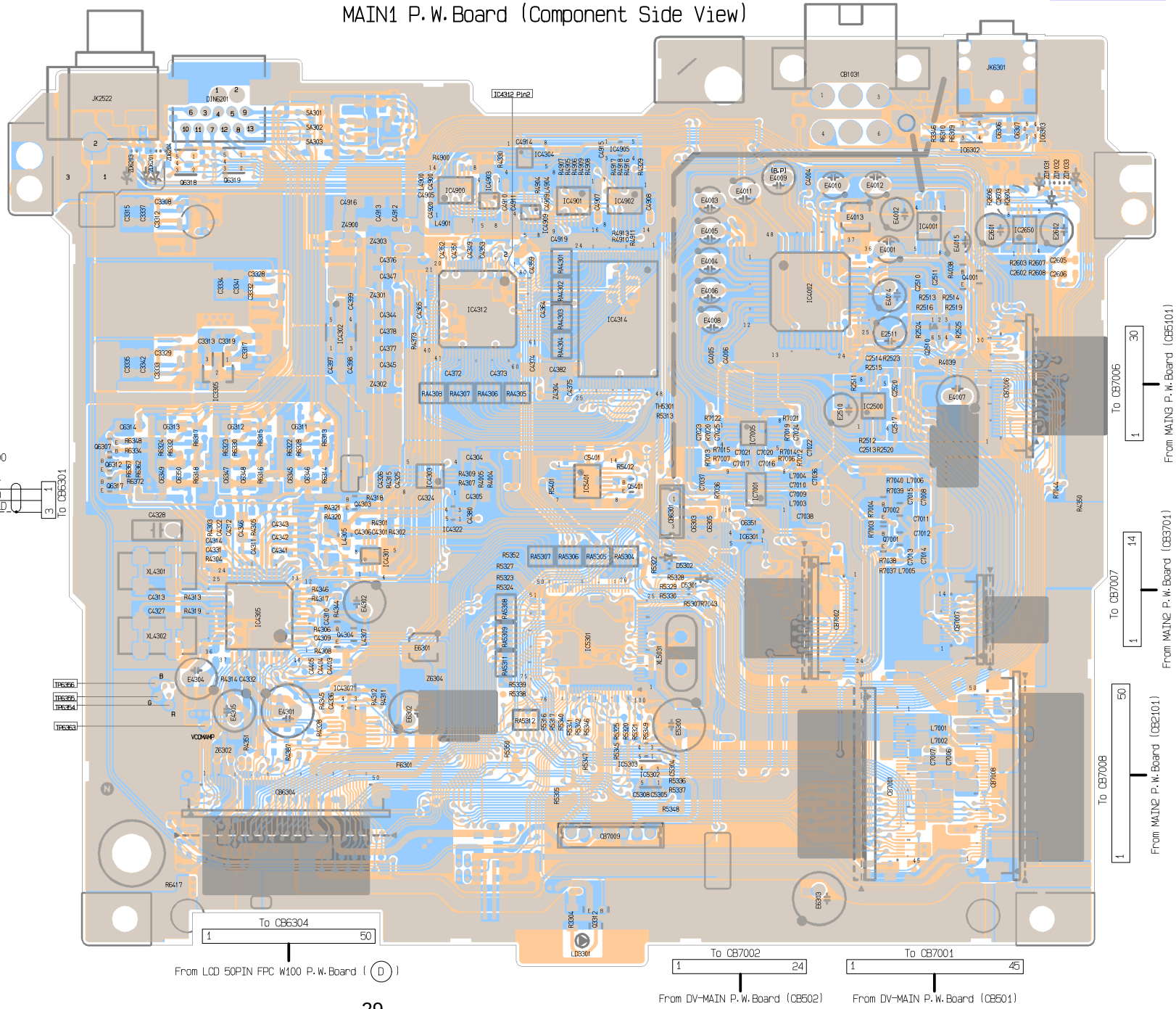
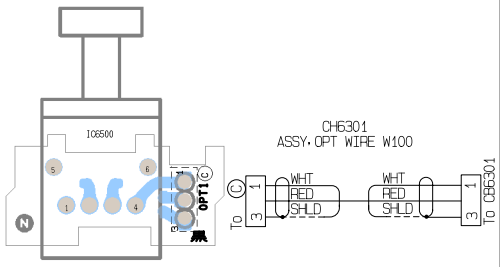
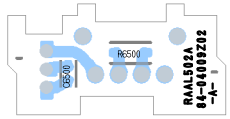
MAIN1 P.W.Board (Component Side View)



OPT P.W.Board (Component Side View)



OPT P.W.Board (Foil Side View)



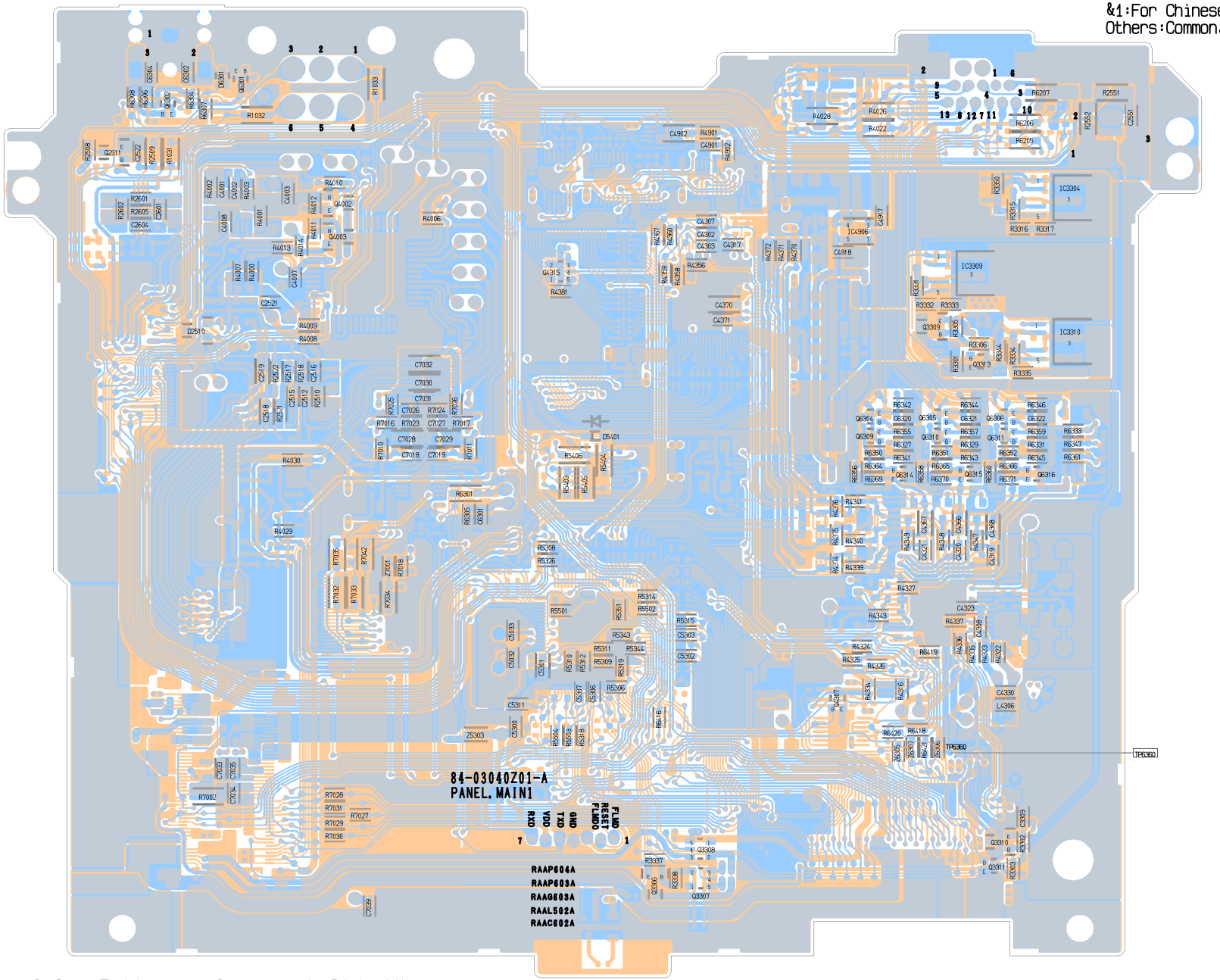
Orange Color Pattern : Component Side View
Blue Color Pattern : Foil Side View

Parts Layout on P.W.Boards and Wiring Diagram(2/9)

NOTE:#1:For North American Model Only.
$1:For General Foreign(Region3) Model Only.
%1:For General Foreign(Region4) Model Only.
&1:For Chinese Model Only.
Others:Common.

TO CONTENTS

MAIN1 P.W.Board (Foil Side View)



#1	$1	%1	&1
N.U.	N.U.	R5309	R5309
R5310	R5310	N.U.	N.U.
N.U.	R5311	N.U.	R5311
R5312	N.U.	R5312	N.U.

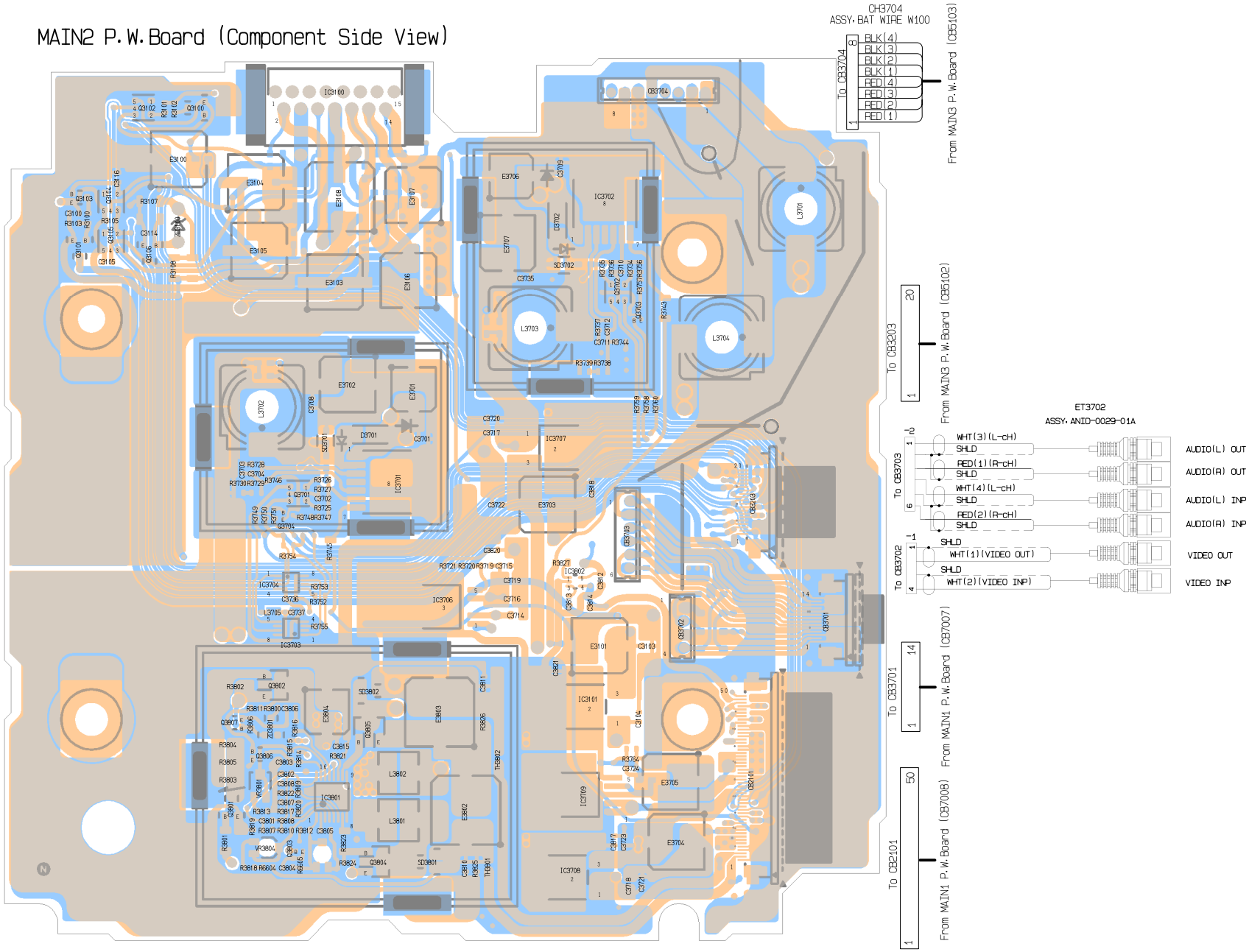
Orange Color Pattern : Component Side View

Blue Color Pattern : Foil Side View

Parts Layout on P.W.Boards and Wiring Diagram(3/9)

TO CONTENTS

MAIN2 P.W.Board (Component Side View)

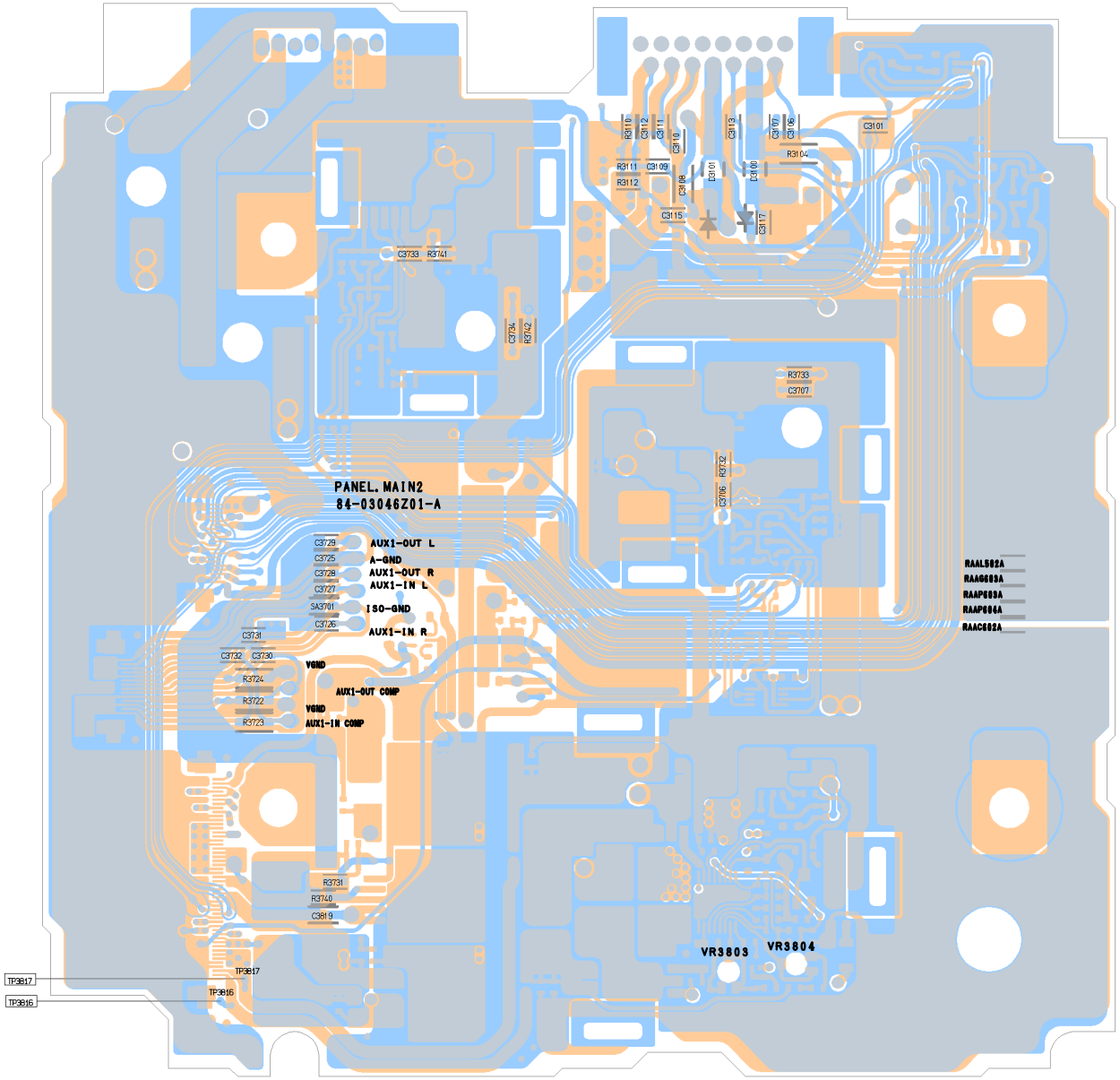


Orange Color Pattern : Component Side View
Blue Color Pattern : Foil Side View

Parts Layout on P.W.Boards and Wiring Diagram(4/9)

TO CONTENTS

MAIN2 P.W.Board (Foil Side View)



Orange Color Pattern : Component Side View

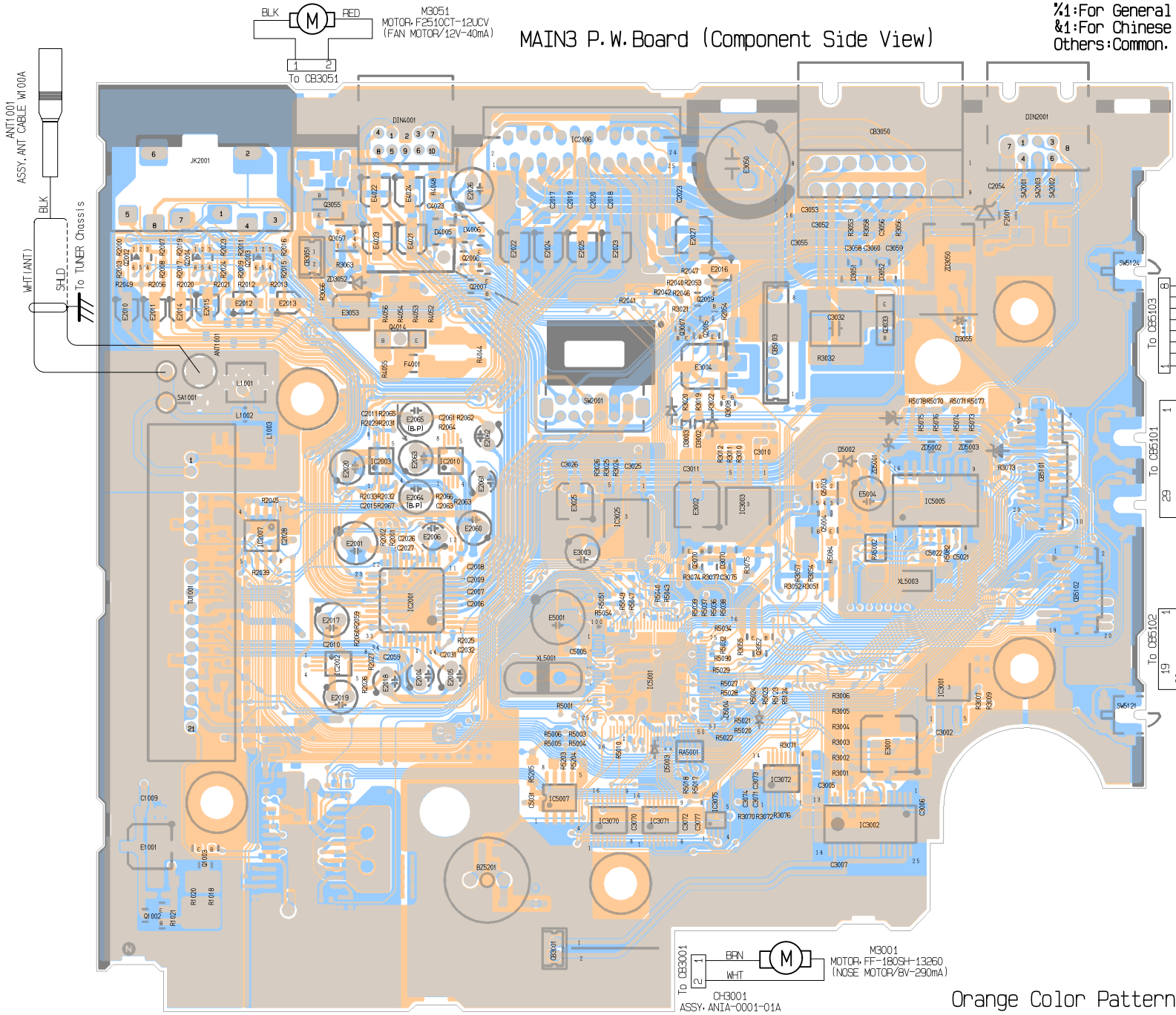
Blue Color Pattern : Foil Side View

Parts Layout on P.W.Boards and Wiring Diagram(5/9)

NOTE:#1:For North American Model Only.
$1:For General Foreign(Region3) Model Only.
%1:For General Foreign(Region4) Model Only.
&1:For Chinese Model Only.
Others:Common.

TO CONTENTS

MAIN3 P.W.Board (Component Side View)



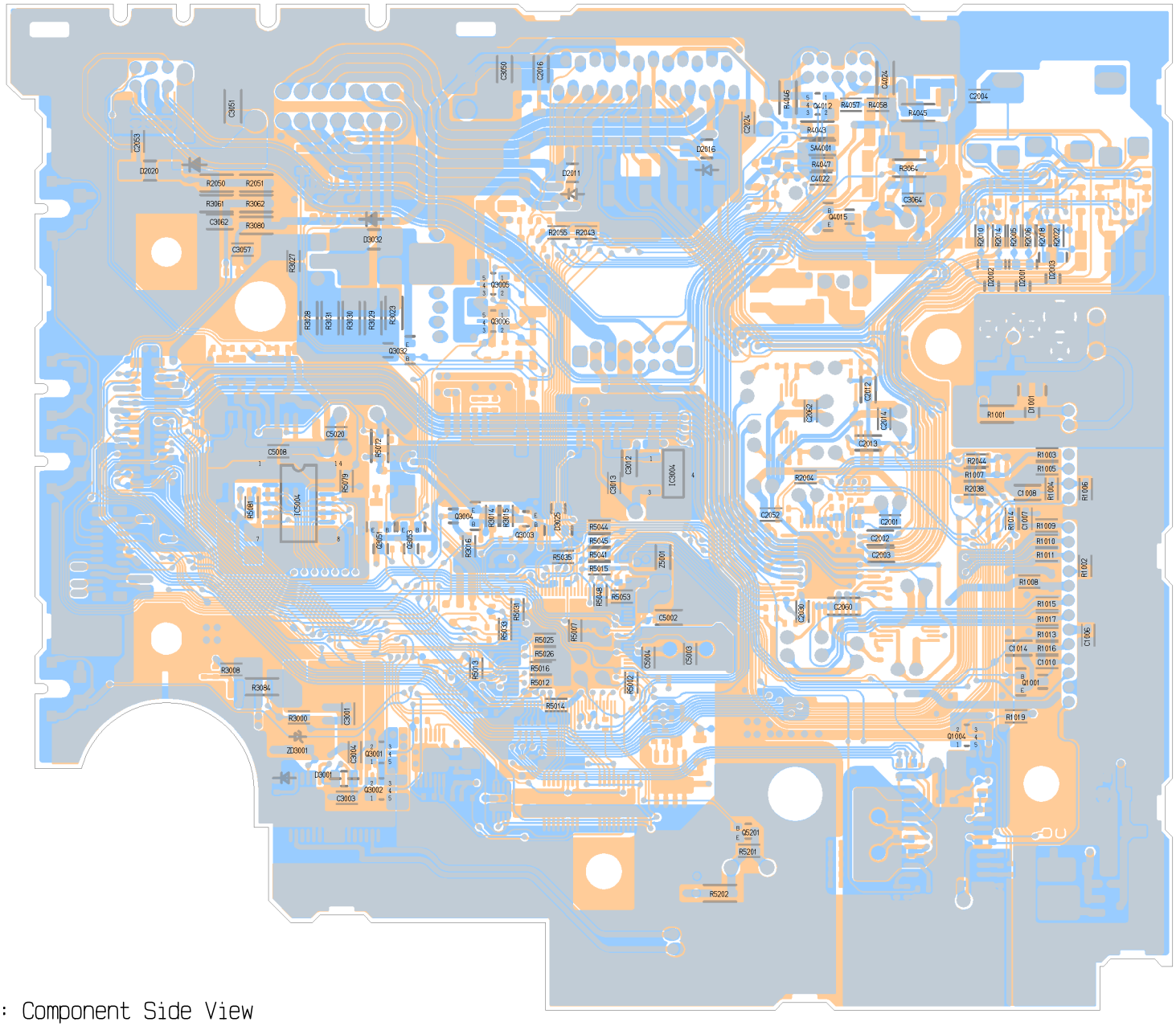
#1	$1	%1	&1
C3056	N.U.	N.U.	N.U.
C3059	N.U.	N.U.	N.U.
Q3052	N.U.	N.U.	N.U.
R3056	N.U.	N.U.	N.U.
N.U.	N.U.	R5036	R5036
N.U.	R5037	N.U.	R5037
R5038	R5038	N.U.	N.U.
R5039	N.U.	R5039	N.U.

Orange Color Pattern : Component Side View
Blue Color Pattern : Foil Side View

Parts Layout on P.W.Boards and Wiring Diagram(6/9)

TO CONTENTS

MAIN3 P.W.Board (Foil Side View)

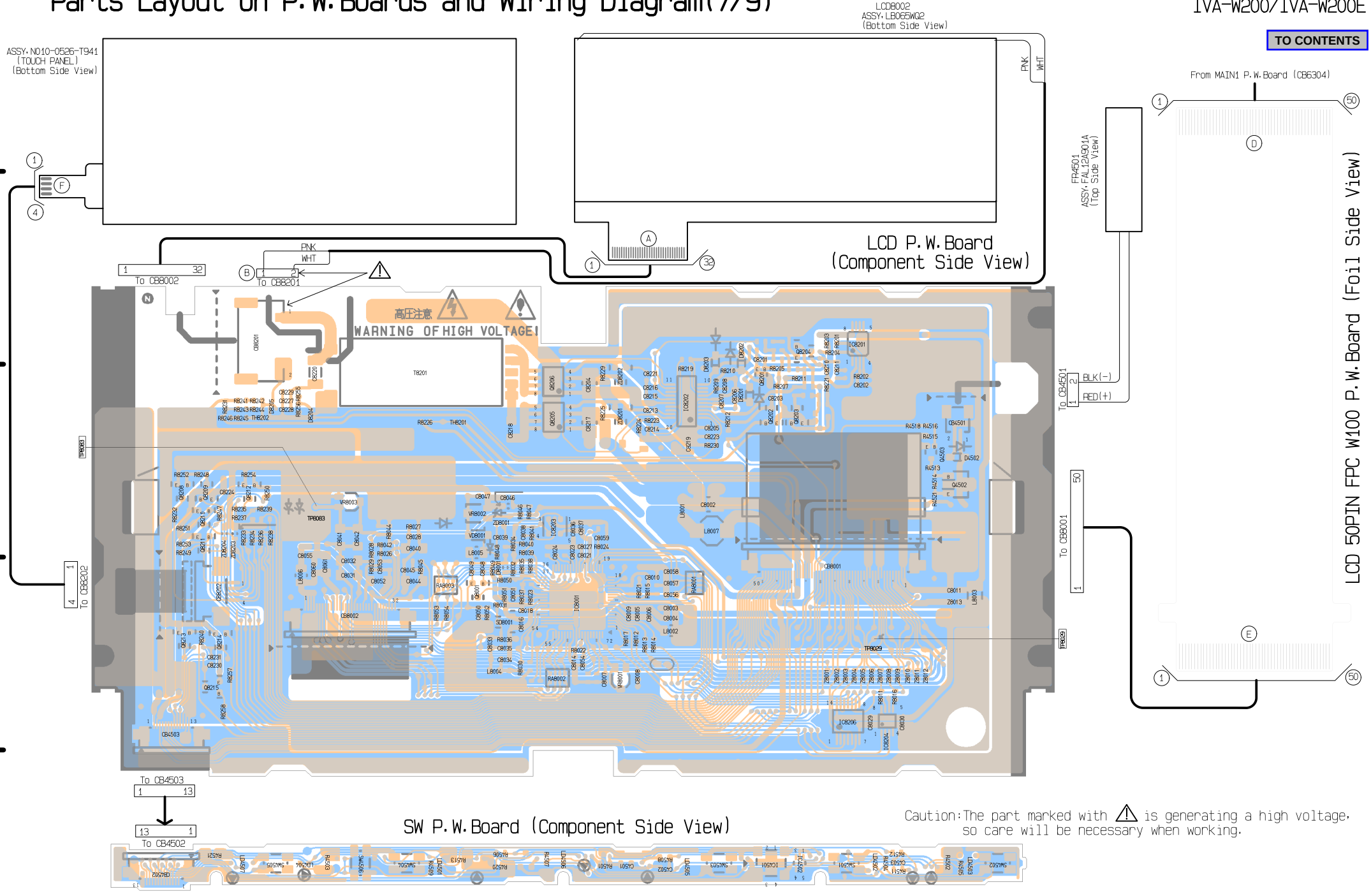


Orange Color Pattern : Component Side View

Blue Color Pattern : Foil Side View

Parts Layout on P.W.Boards and Wiring Diagram(7/9)

TO CONTENTS



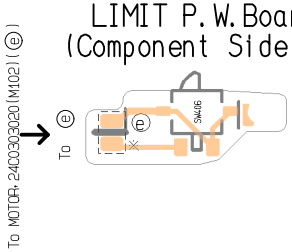
Caution:The part marked with ⚠ is generating a high voltage, so care will be necessary when working.

Orange Color Pattern : Component Side View
Blue Color Pattern : Foil Side View

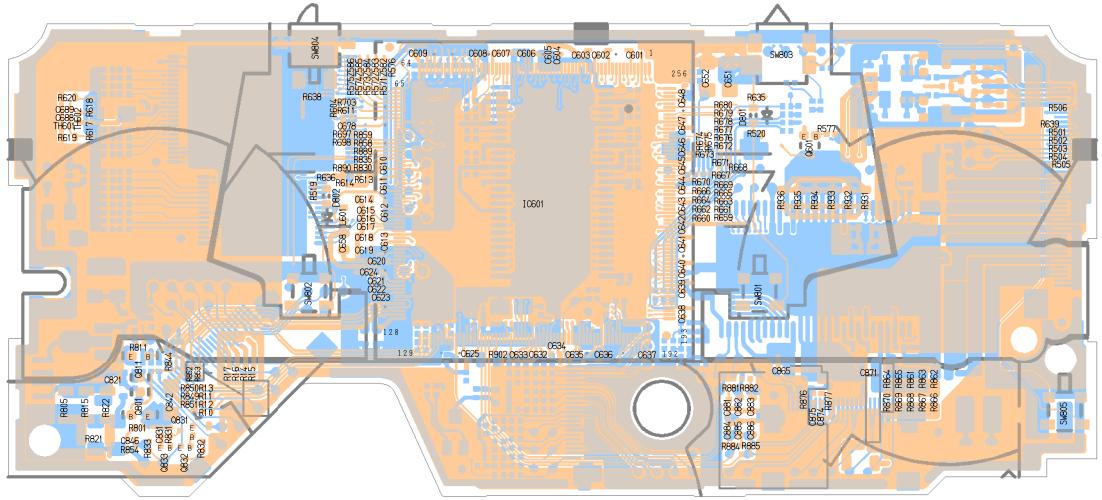
Parts Layout on P.W.Boards and Wiring Diagram(8/9)

TO CONTENTS

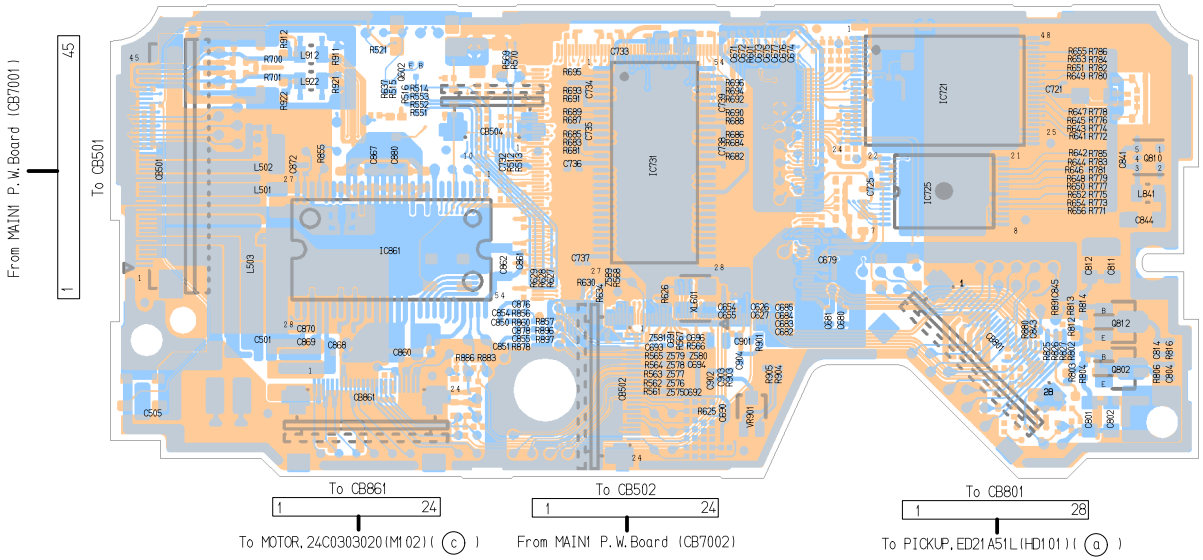
LIMIT P.W.Board (Component Side View)



DV-MAIN P.W.Board (Component Side View)



DV-MAIN P.W.Board (Foil Side View)

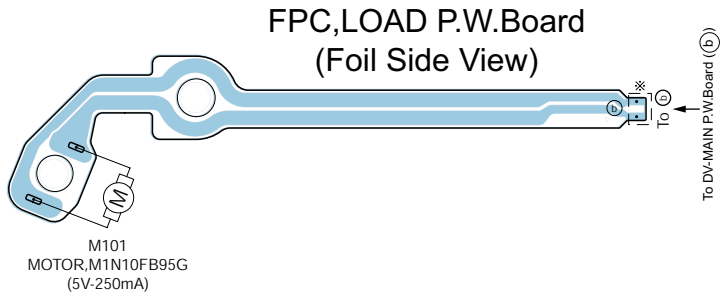


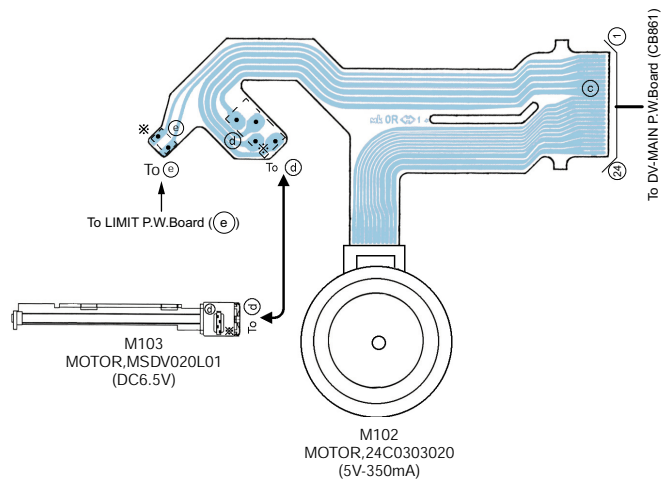
Orange Color Pattern : Component Side View

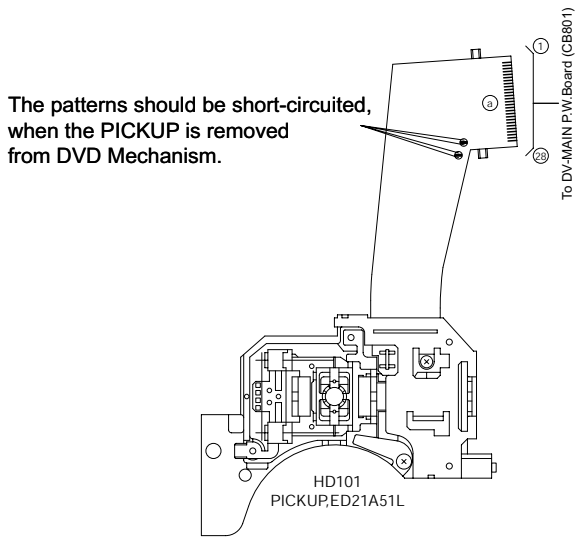
Blue Color Pattern : Foil Side View

Parts Layout on P.W.Boards and Wiring Diagram (9/9)

TO CONTENTS







Blue Color Pattern:Foil Side Pattern

Schematic Diagram(1/18)

IVA-W200/IVA-W200E

STEERING REMOCON

LIGHTNING CONVERSION IC

NAVI video signal detection

Input of NAVI interrupt signal

NAVI-ISO

OPT MUTE

REMOCON

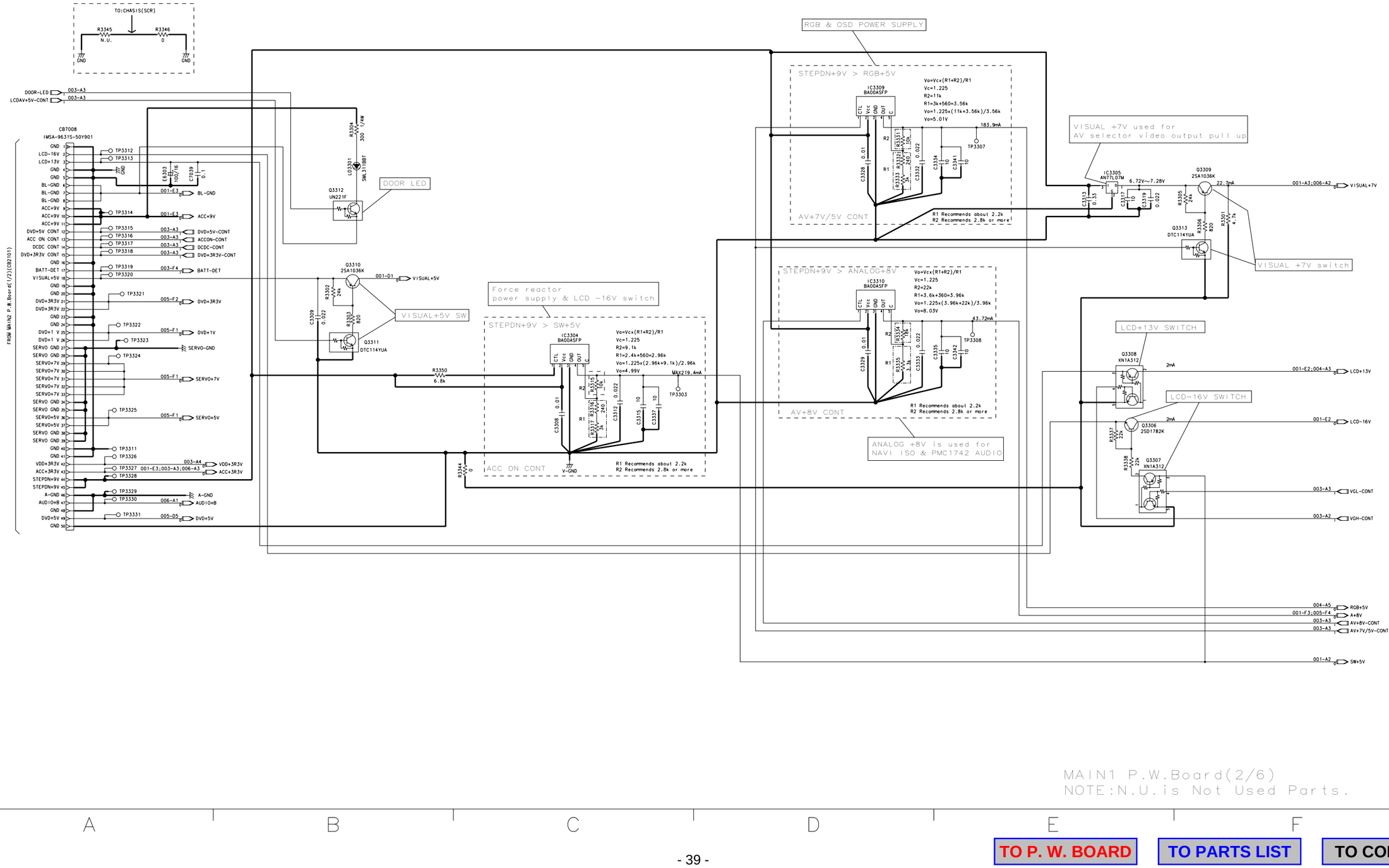
MAIN1 P.W.Board(1/6)

NOTE:N.U.is Not Used Parts.

TO NAVI(DIN6201)

1	AUDIO GND
2	VIDEO GND
3	MONO
4	GUIDE CONT
5	VIDEO
6	REMOUT
7	NAVI RXD
8	R SIGNAL
9	B SIGNAL
10	RGB/ON
11	NAVI TXD
12	C.SYNC
13	G SIGNAL

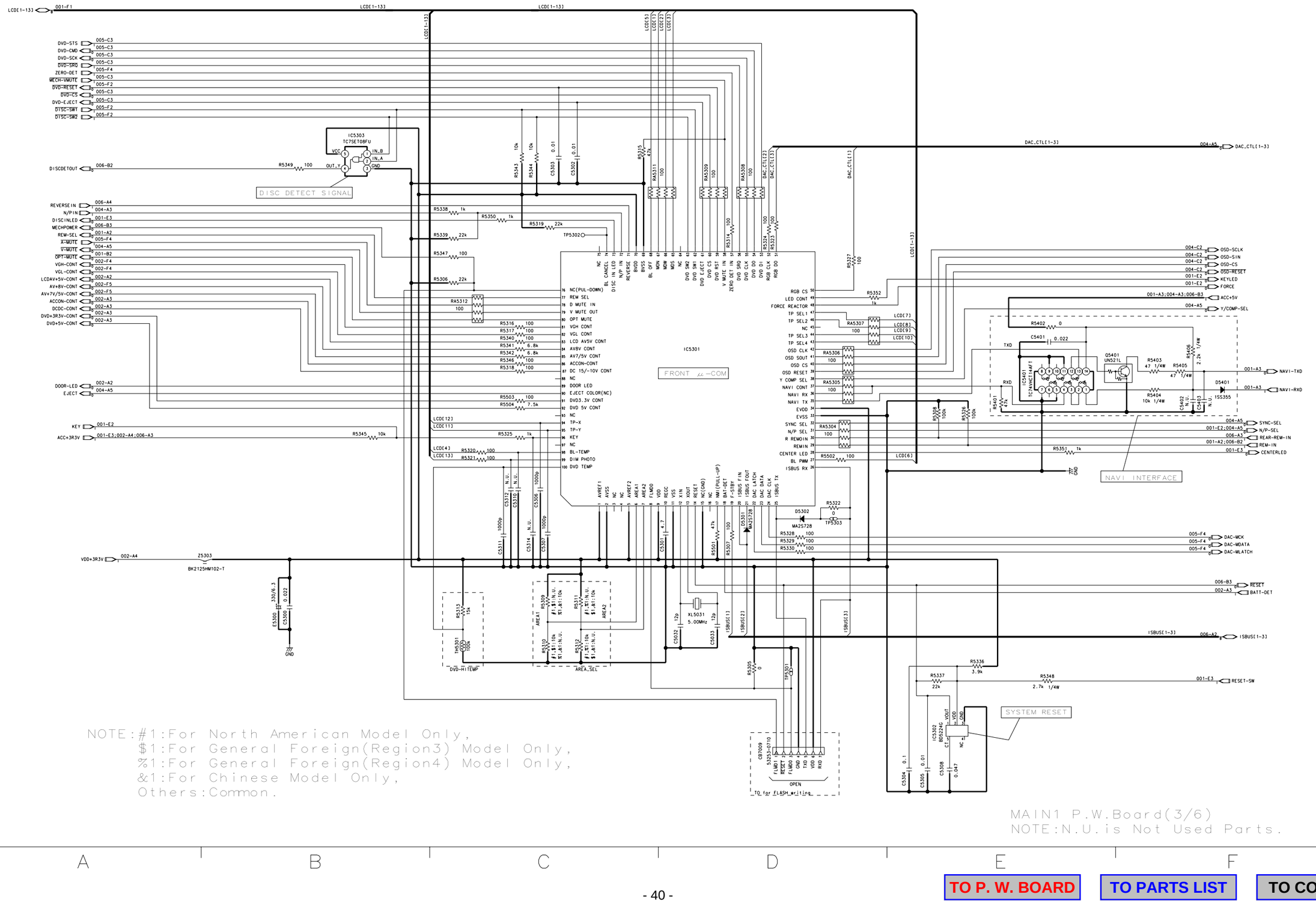
TO P. W. BOARD TO PARTS LIST TO CONTENTS



MAIN1 P.W.Board(2/6)
NOTE:N.U.is Not Used Parts.

Schematic Diagram(3/18)

IVA-W200/IVA-W200E



TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Schematic Diagram(4/18)

IVA-W200/IVA-W200E

VCO frequency generator for OSD

Frequency generator circuit for OSD

OSD frequency generator circuit POWER SUPPLY

OSD & FLASH MEMORY POWER SUPPLY

FLASH MEMORY

MEMORY IC RESET

SYNC BUFFER

C signal selector

RGB DECODER

DC LEVEL CONVERTOR

VIDEO SIGNAL AMP

VIDEO SWITCH(COMP/Y)

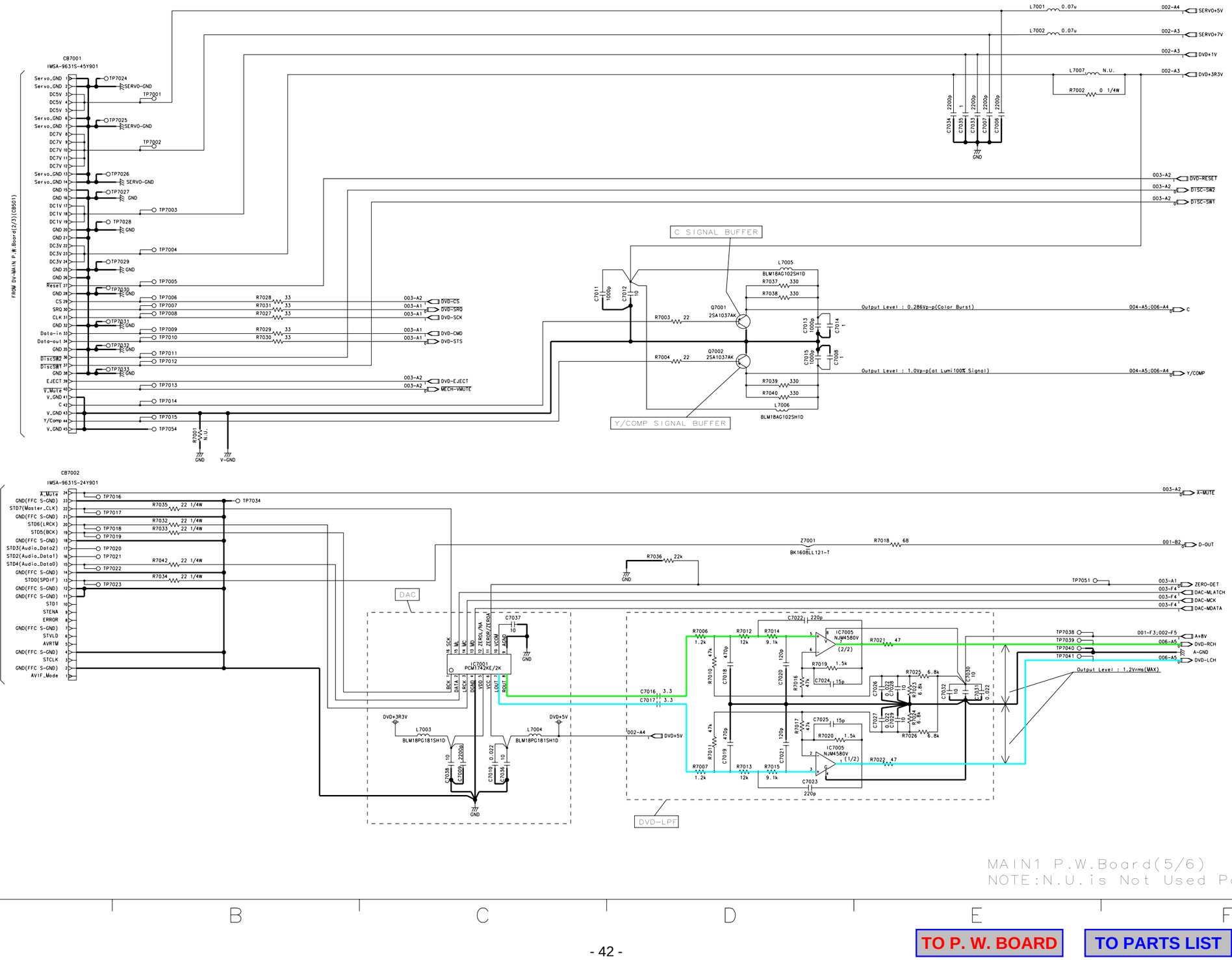
MUTE SIGNAL SUPERIMPOSE

VIDEO MUTE TR

MAIN1 P.W.Board(4/6)

NOTE:N.U.is Not Used Parts.

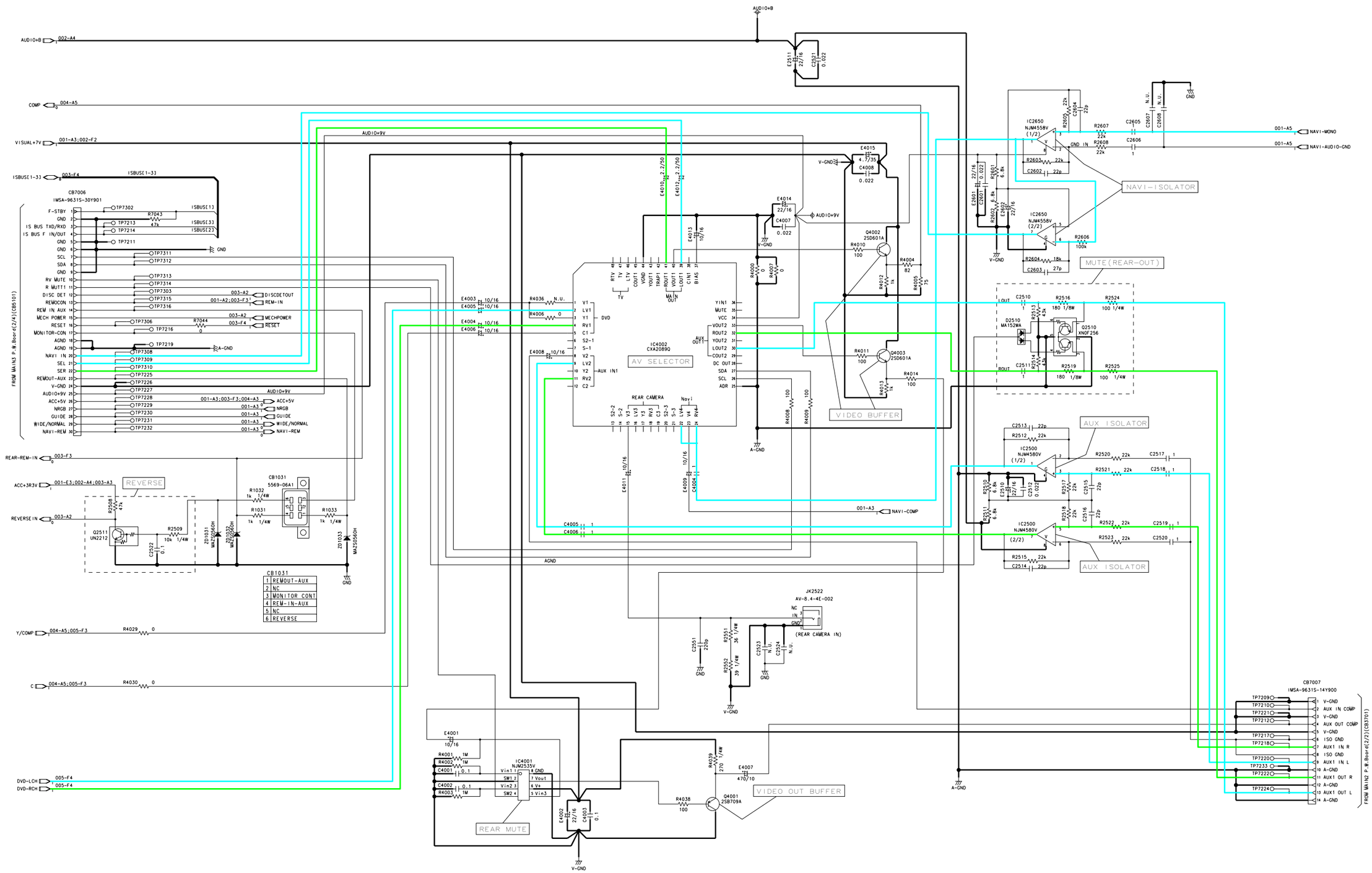
TO P. W. BOARD | TO PARTS LIST | TO CONTENTS



MAIN1 P.W.Board(5/6)
NOTE:N.U.is Not Used Parts.

Schematic Diagram(6/18)

IVA-W200/IVA-W200E

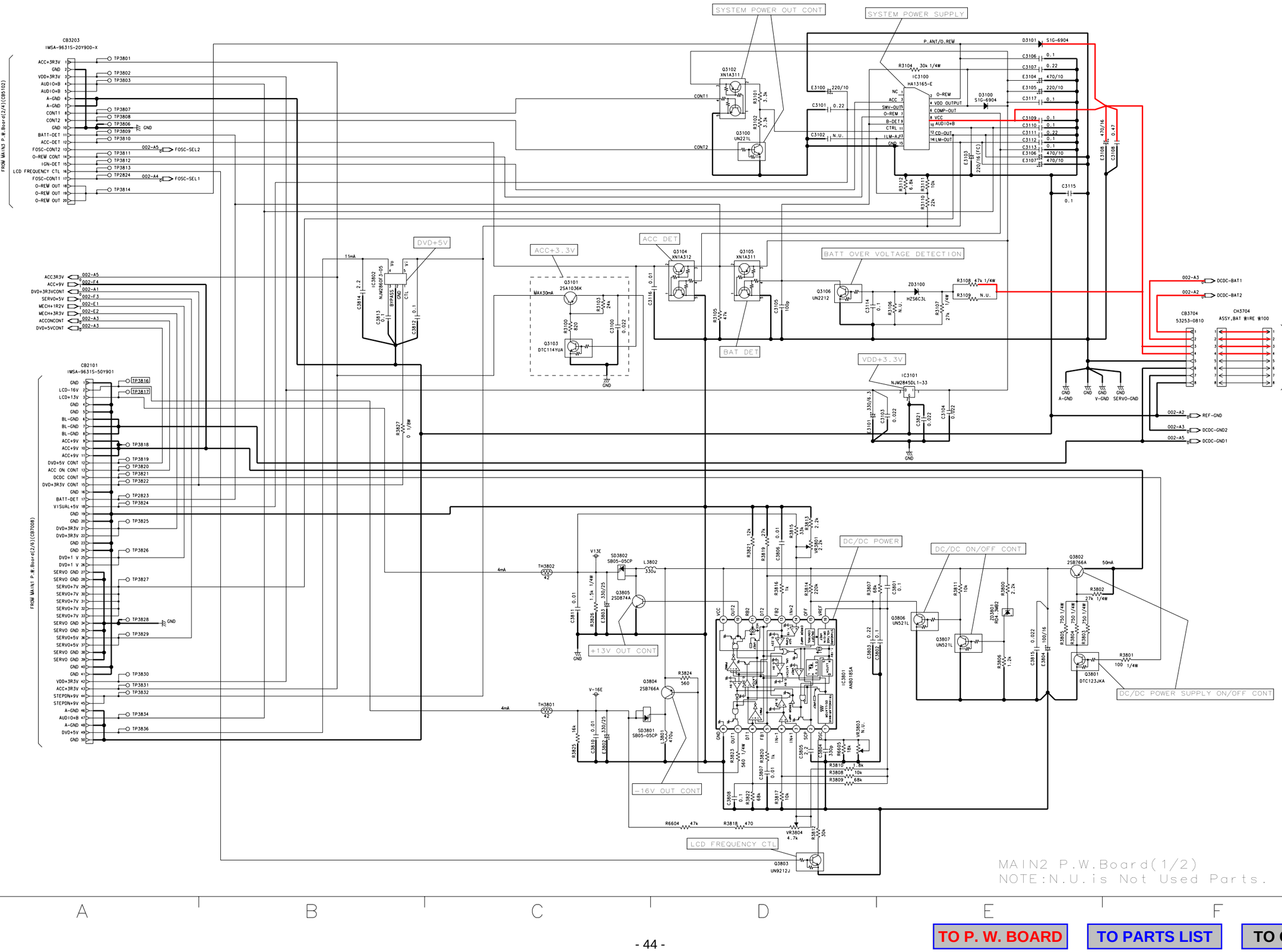


MAIN1 P.W.Board(6/6)

NOTE:N.U.is Not Used Parts.

Schematic Diagram(7/18)

IVA-W200/IVA-W200E



TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Schematic Diagram(8/18)

IVA-W200/IVA-W200E

MECH+1.2V 2.5V⟶1.2V

4.1V⟶2.5V CONVERTOR IC

IC3709 PQ015YZ01ZPH

IC3707 NJM2845DL1-25

MAX:400mA

001-A2 MECH+1R2V

DVD+4.1V BATT⟶4.1V CONVERTOR IC

DVD+3R3VCONT 001-A2

IC3702 BD9778HFP

3.98~4.13~4.31V

DCDC-BAT2 001-F2

L3701 68u

R3743 6.8k 1/4W

TP3701 TP3702

D3702 S1G-6904

MAX:868mA TYPE:756mA

L3703 68u

DVD+3.3V 4.1V⟶3.3V

IC3708 NJM2845DL1-33

MAX:468mA TYPE:408mA

001-A2 MECH+3R3V

Q3702 XN1212

Q3703 UN9212J

DC/DC OSCILLATION FREQUENSY

REF-GND 001-F3

DCDC-GND2 001-F3

SERVO+5V 9V⟶5V

DVD+5VCONT 001-A3

ACCONCONT 001-A2

ACC+9V BATT⟶9V

8.66~9.00~9.34V

IC3706 BA00ASFP

Vo=Vcx(R1+R2)/R1
Vc=1.225
R2=8.2k
R1=2.2k+470=2.67k
Vo=1.225×(2.67k+8.2k)/2.67k
Vo=4.99V

MAX:280mA

SERVO+5V

001-A2 SERVO+5V

IC3701 BD9778HFP

DCDC-BAT1 001-F2

L3704 68u

R3745 6.8k 1/4W

TP3703 TP3704

D3701 S1G-6904

MAX:1639mA TYPE:736mA

L3702 68u

R1 Recommends about 2.2k
R2 Recommends 2.8k or more

DVD+5V CONT

001-A2 ACC+9V

Q3701 XN1212

Q3704 UN9212J

DC/DC OSCILLATION FREQUENCY

CB3701 IMSA-9631S-14Y900

FROM MAIN1 P.W.Board(6/6)(CB7007)

V-GND
AUX IN COMP
V-GND
AUX OUT COMP
V-GND
ISO GND
AUX1 IN R
ISO GND
AUX1 IN L
A-GND
AUX1 OUT R
A-GND
AUX1 OUT L
A-GND

R3722 68 1/4W

CB3702 53253-0410

CB3703 53253-0610

ET3702 ASSY,AN1D-0029-01A

VIDEO INP
VIDEO OUT
AUDIO(R) INP
AUDIO(L) INP
AUDIO(R) OUT
AUDIO(L) OUT

IC3704 TC7WH08FU

IC3703 TC7WH04FU

FOSC-SEL1 001-A2

FOSC-SEL2 001-A2

FREQUENCY CONT LOGIC CIRCUIT

ACC3R3V 001-A2

L3705 BLM18AG102SH1D

DCDC-GND1 001-F3

MAIN2 P.W.Board(2/2)

NOTE:N.U.is Not Used Parts.

TO P. W. BOARD TO PARTS LIST TO CONTENTS

Schematic Diagram(9/18)

NOTE:#1:For North American Model Only,
$1:For General Foreign(Region3) Model Only,
%1:For General Foreign(Region4) Model Only,
&1:Chinese Model Only,
Others:Common.

IVA-W200/IVA-W200E

MOTOR POWER
MOTOR REVERSE CONTROL
MOTOR FORWARD CONTROL
MOTOR DRIVER
P-ANT CONTROL CIRCUIT & OVERVOLTAGE PROTECTO CIRCUIT
AUDIO+9V
BATT+5V
A1+5V & ACC+5V
ACC+5V
REMOCON BUFFER
REMOUT-AUX
REMOUT-NAVI
A-MUTE DRIVE
R-MUTE1 DRIVE
PARKING
FOOT PARKING
IN-INT
FAN+B
FAN CONT
MONITOR CONT

REMOUT AUX/NAVI

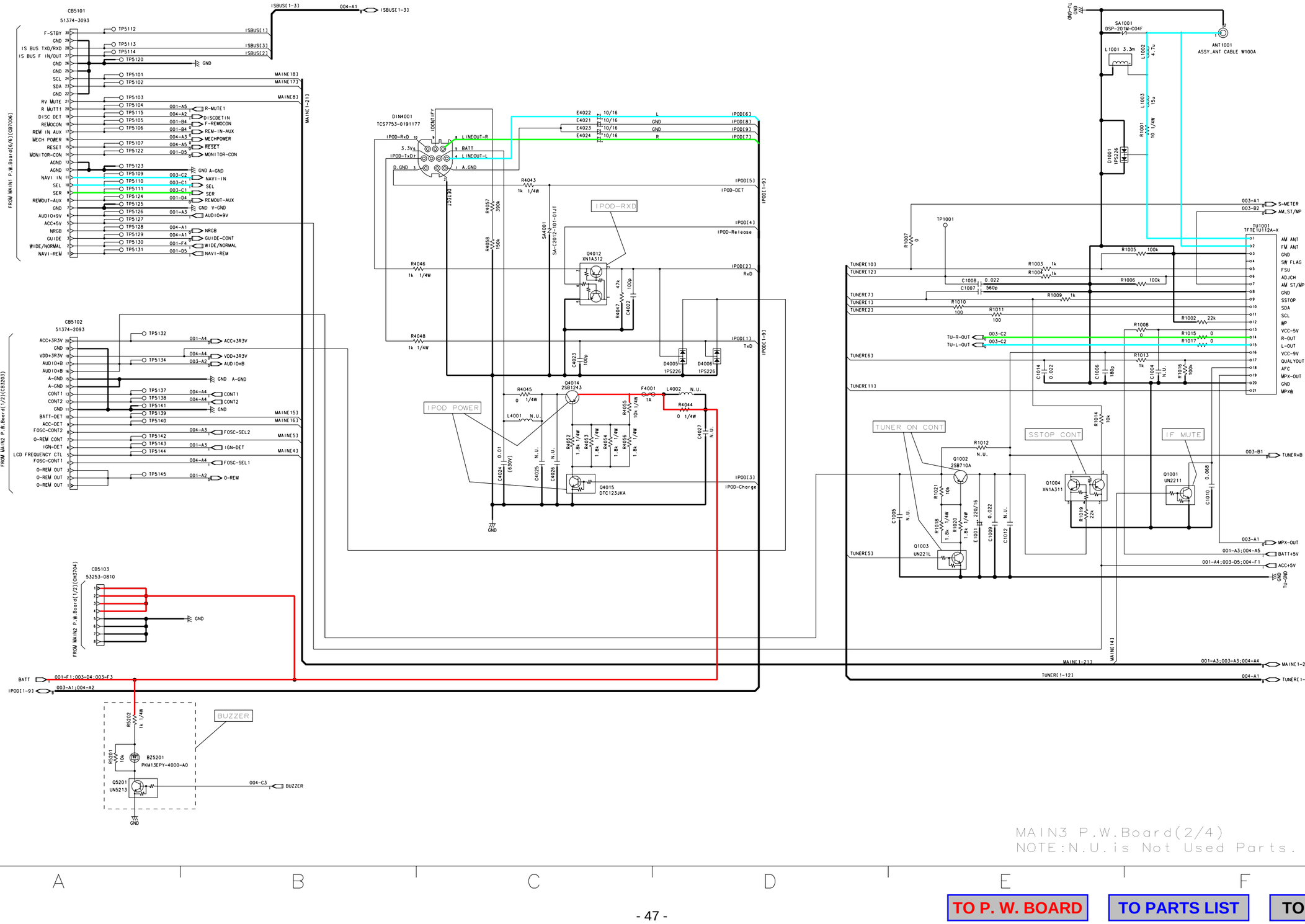
A	B	C	ON-ch
L	L	L	0 OFF
H	L	L	1 FRONT REMOCON
L	H	L	2 REM-IN-AUX
H	H	L	3 μ-COM REMO-OUT
L	L	H	4 NC
H	L	H	5 NC
L	H	H	6 NC
H	H	H	7 NC

MAIN3 P.W.Board(1/4)
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Schematic Diagram(10/18)

IVA-W200/IVA-W200E



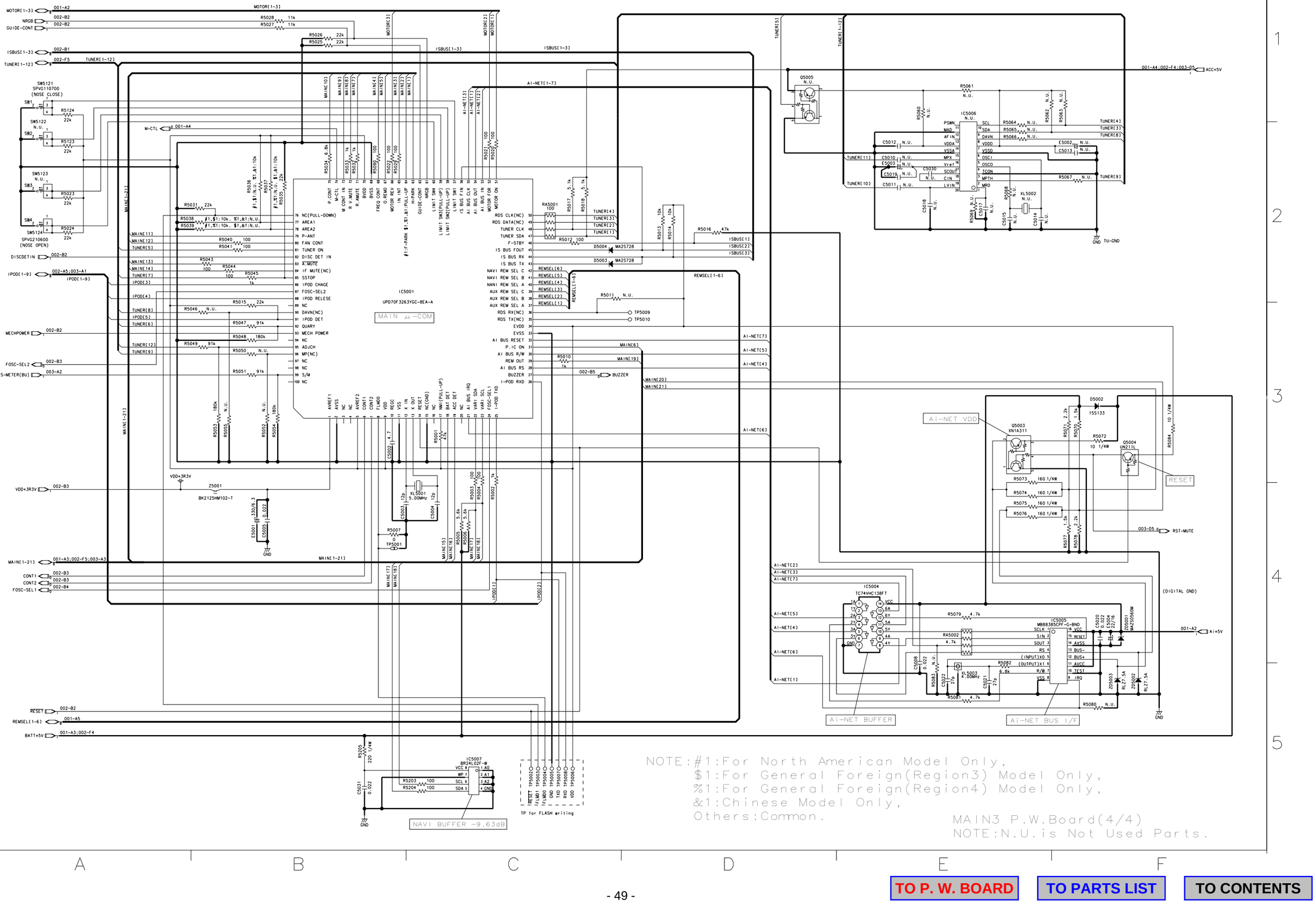
TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Schematic Diagram(11/18)

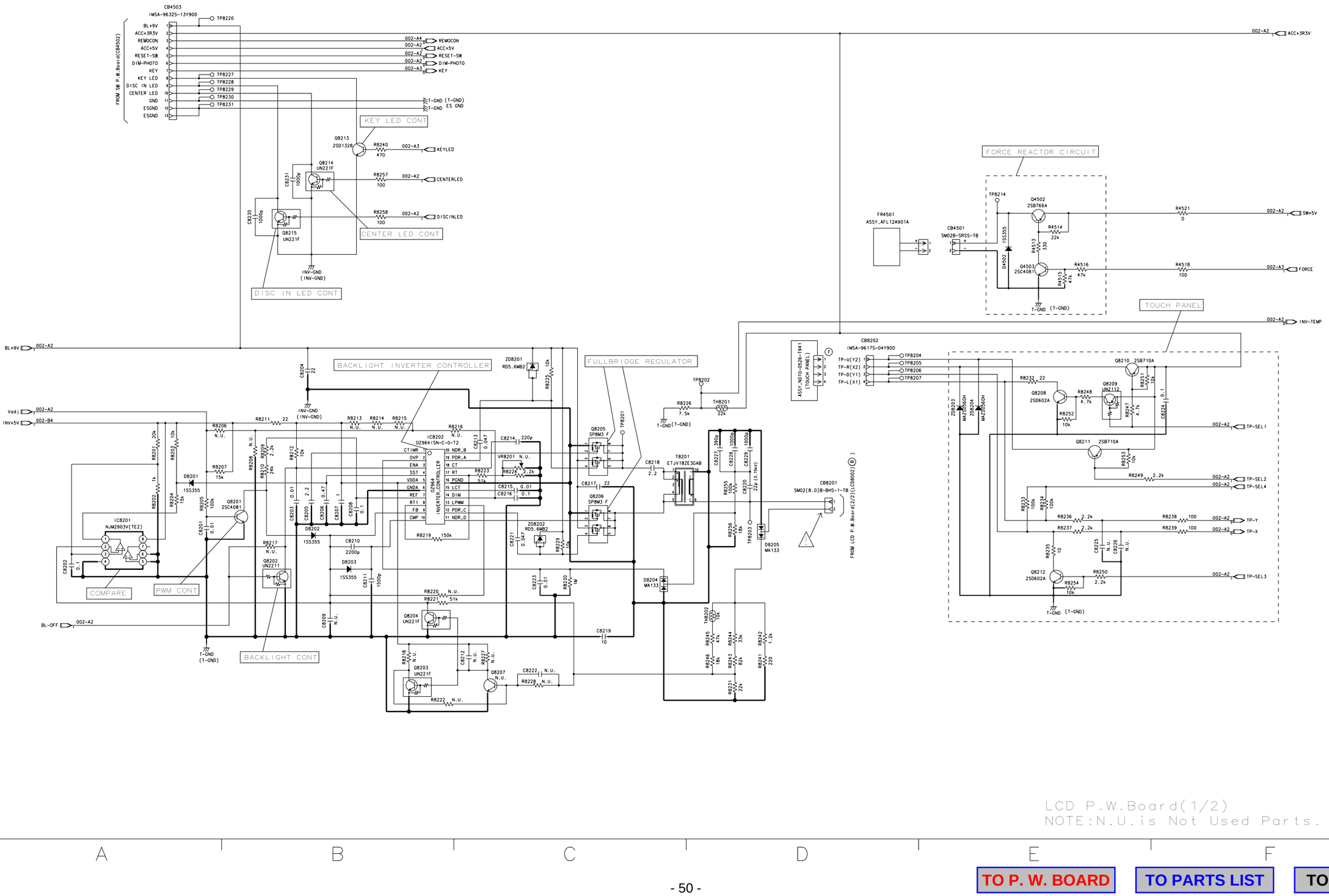
IVA-W200/IVA-W200E

MAIN3 P.W.Board(3/4)
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

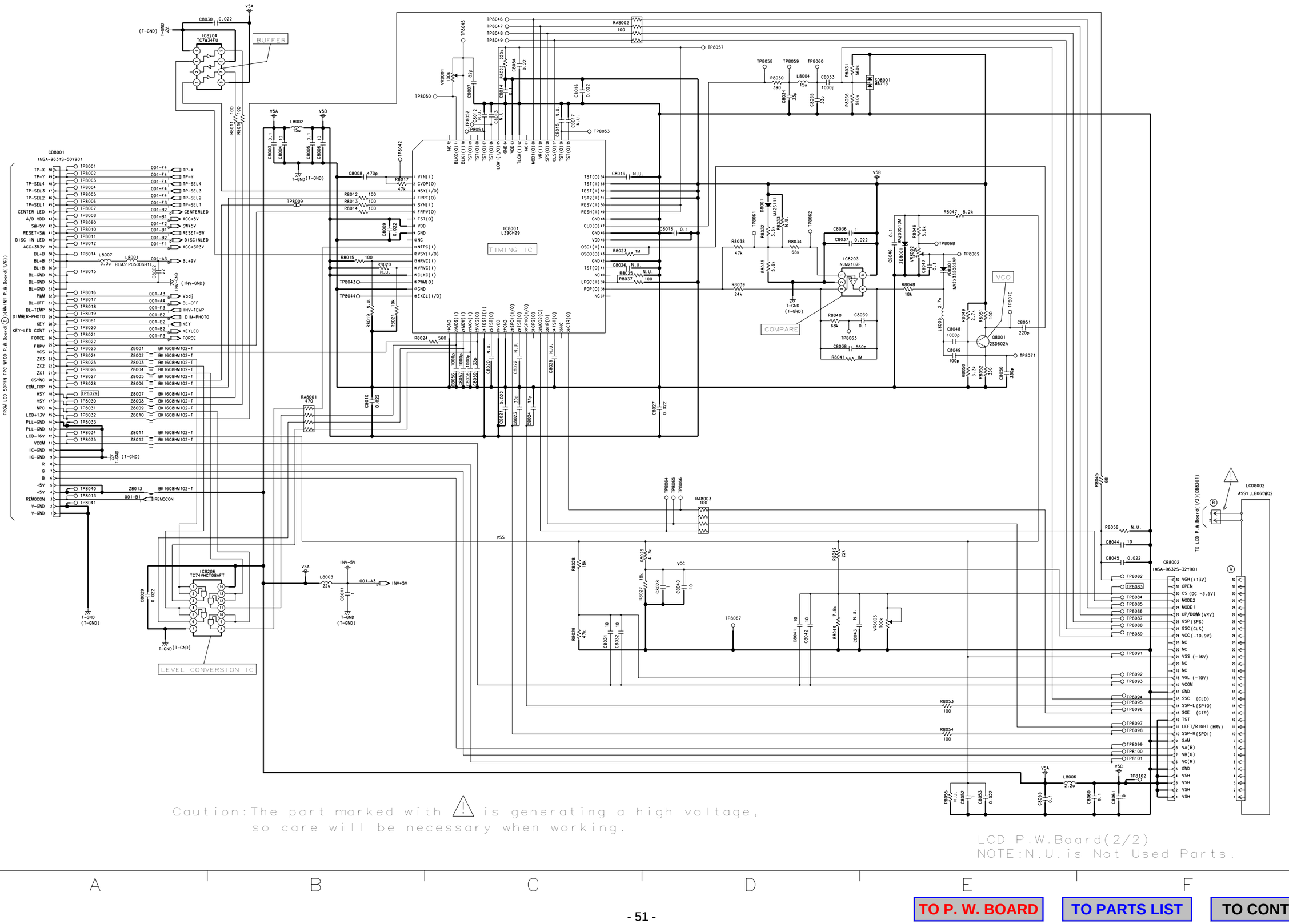

IC5001
UPD70F3263YGC-8EA-A
MAIN
IC5004
TC74VHC138FT
IC5005
MB88385CPF-G-BND
IC5006
IC5007
BR24L02F-W
Z5001
BK2125HM102-T
XL5001
5.00MHz
XL5002
XL5003
4.00MHz
Q5003
XN1A311
Q5004
UN211L
Q5005
D5002
1SS133
D5003
MA2S728
D5004
MA2S728
D5001
MAZ5056M
Ai-NET VDD
RESET
(DIGITAL GND)
TU-GND
ACC+5V
RST-MUTE
Ai+5V
BUZZER
Ai-NET BUFFER
Ai-NET BUS I/F
NAVI BUFFER -9.63dB
TP for FLASH writing
SW5121
SPVG110700
(NOSE CLOSE)
SW5122
N.U.
SW5123
N.U.
SW5124
SPVG210600
(NOSE OPEN)
MOTOR[1-3]
ISBUS[1-3]
TUNER[1-12]
Ai-NET[1-7]
REMSEL[1-6]
MAIN[1-21]
M-CTL
DISCDETIN
IPOD[1-9]
MECHPOWER
FOSC-SEL2
S-METER(BU)
VDD+3R3V
CONT1
CONT2
FOSC-SEL1
BATT+5V
NOTE:#1:For North American Model Only,
$1:For General Foreign(Region3) Model Only,
%1:For General Foreign(Region4) Model Only,
&1:Chinese Model Only,
Others:Common.
MAIN3 P.W.Board(4/4)
NOTE:N.U.is Not Used Parts.

Caution:The part marked with ⚠ is generating a high voltage,
so care will be necessary when working.



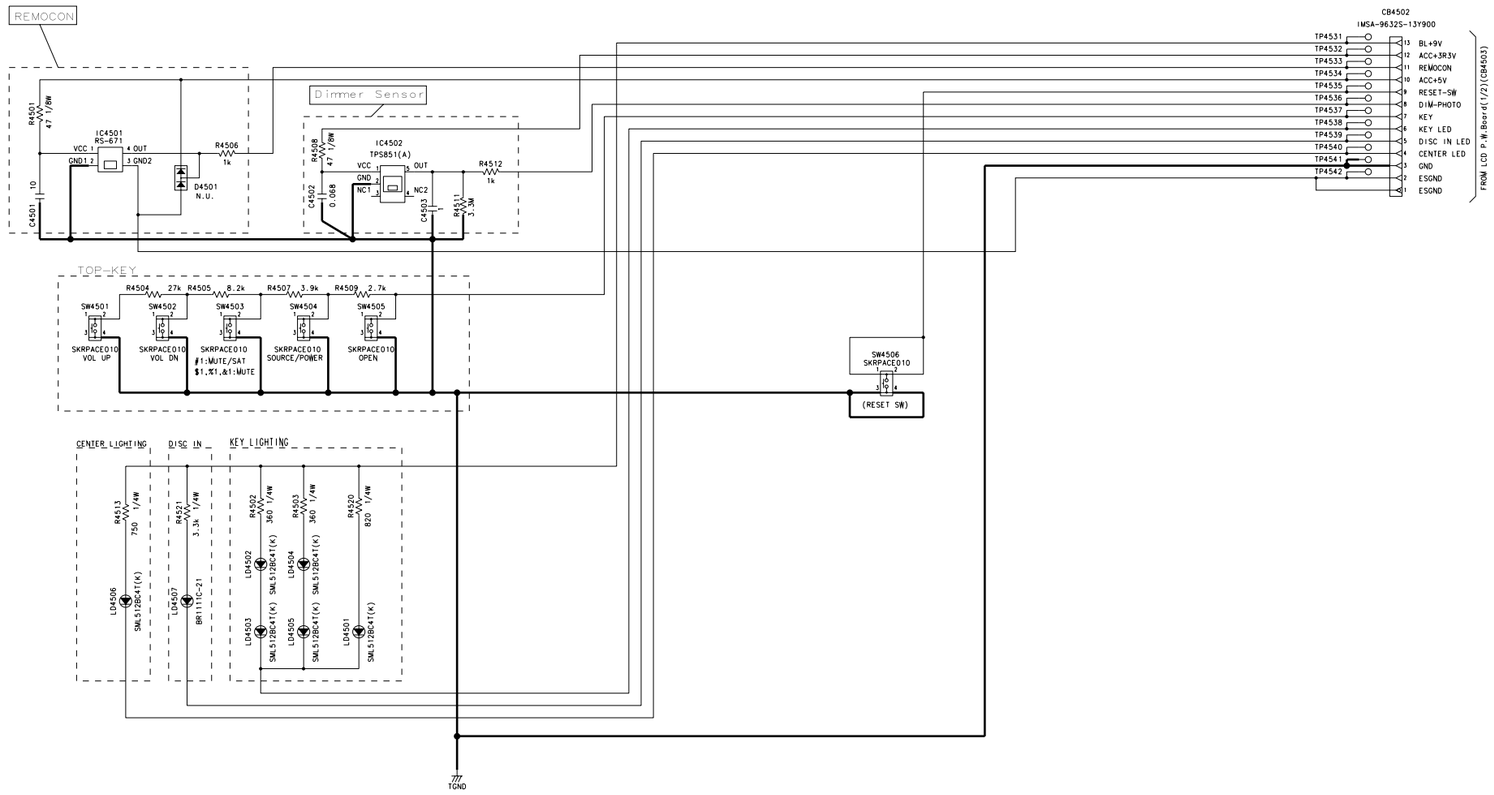
LCD P.W.Board(1/2)
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD
TO PARTS LIST
TO CONTENTS



Caution:The part marked with ⚠ is generating a high voltage, so care will be necessary when working.

NOTE:#1:For North American Model Only,
$1:For General Foreign(Region3) Model Only,
%1:For General Foreign(Region4) Model Only,
&1:For Chinese Model Only,
Others:Common.



SW P.W.Board
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Schematic Diagram(16/18)

IVA-W200/IVA-W200E

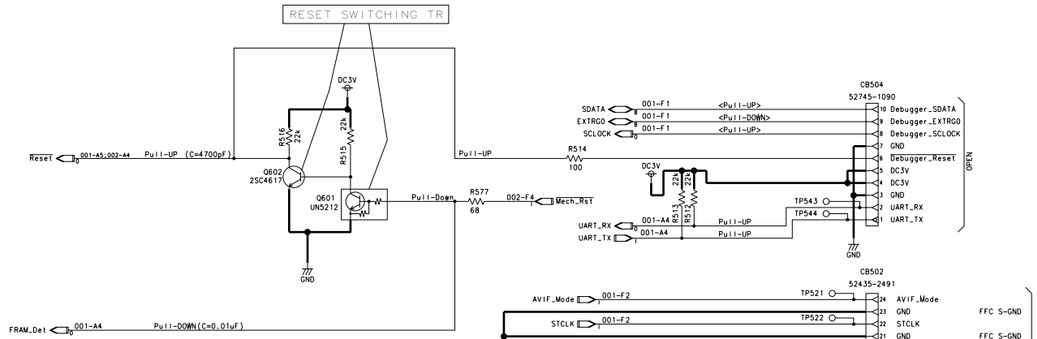
1 CHIP LSI for DVD PLAYER
(FE/SODC/BE with SYSTEM CONTROLLER)

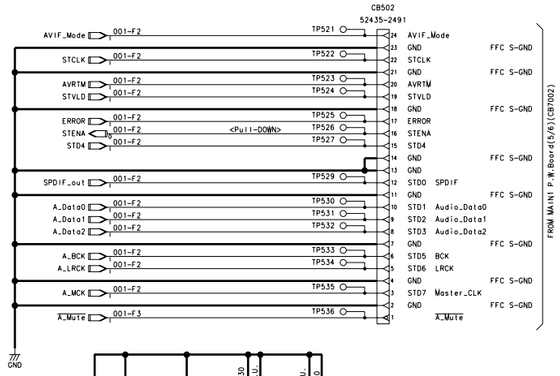
IC601
MN35206UB

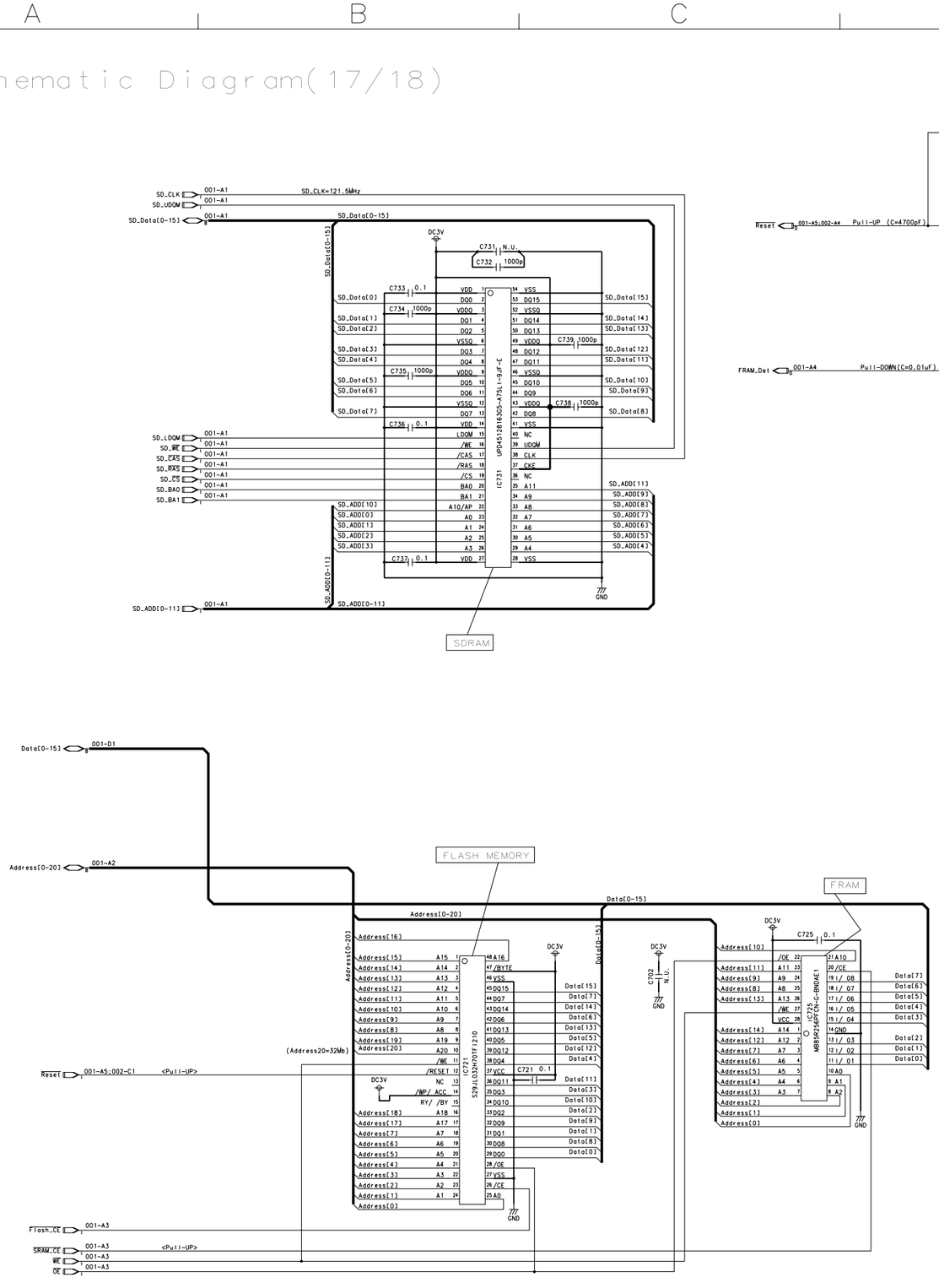
DV-MAIN P.W.Board(1/3)
NOTE:N.U.is Not Used Parts.

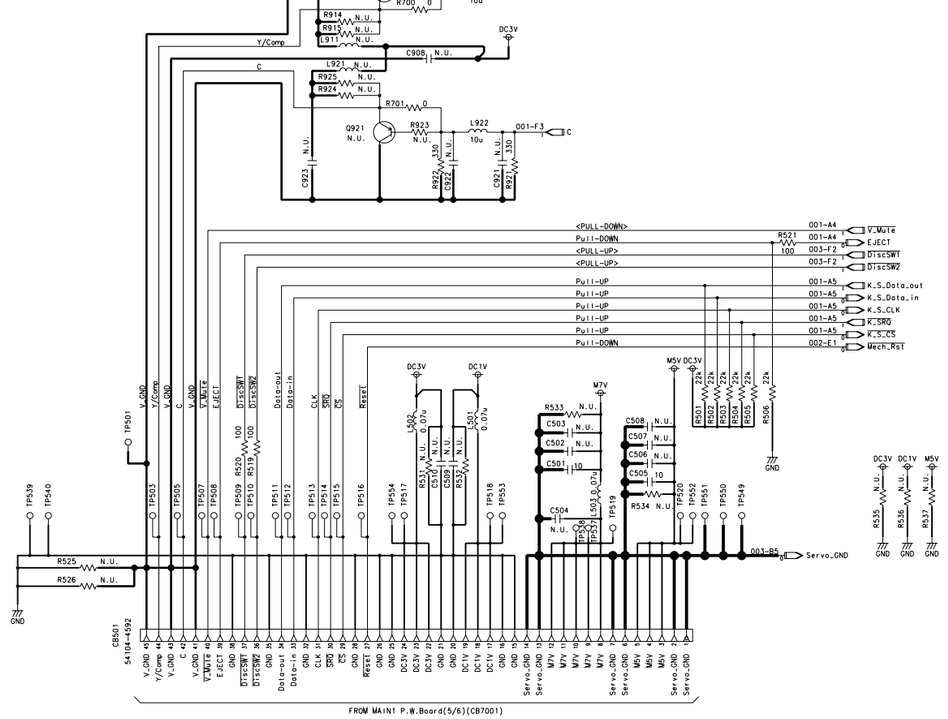
TO P. W. BOARD
TO PARTS LIST
TO CONTENTS

Schematic Diagram(17/18)



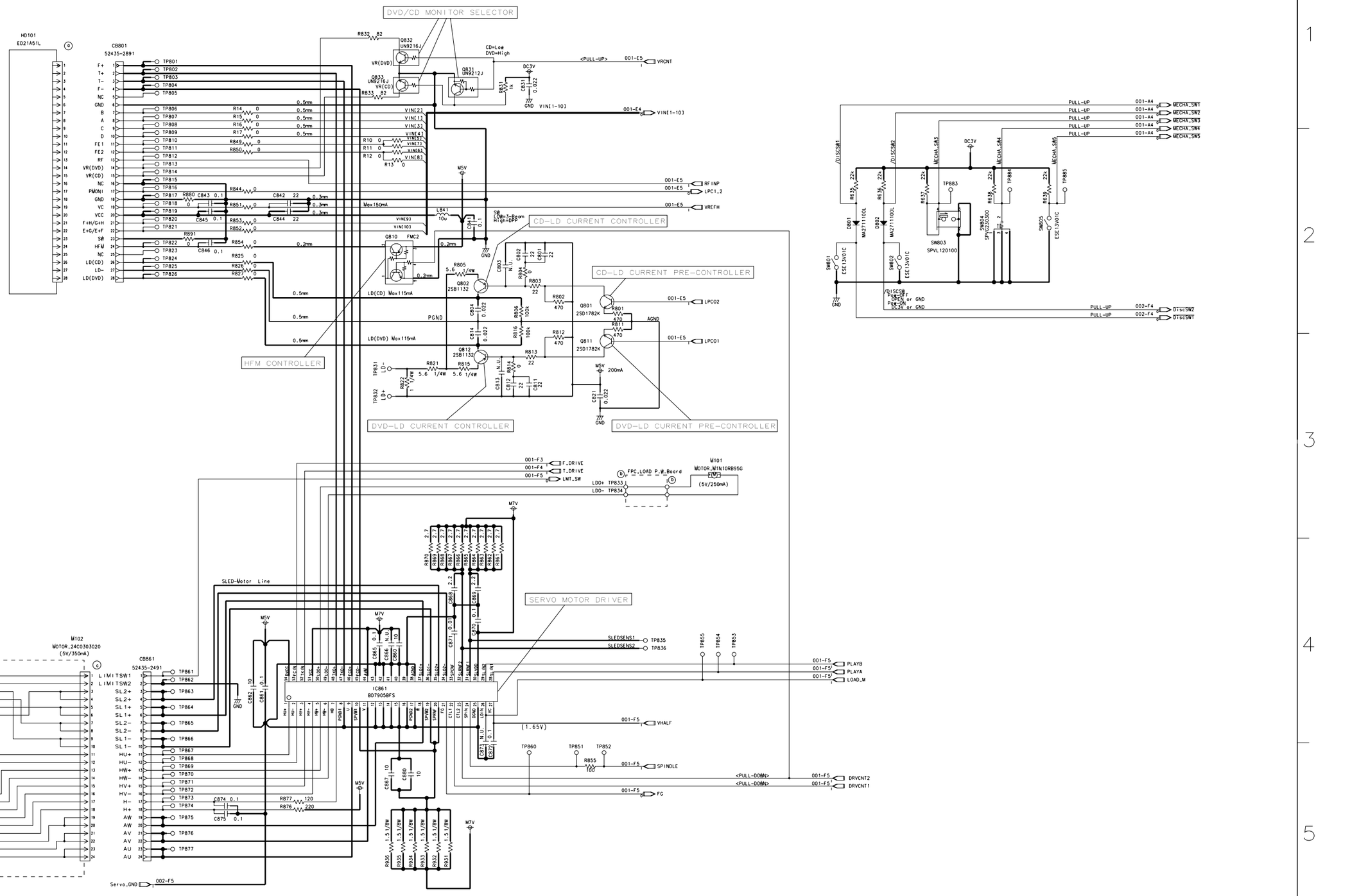






DV-MAIN P.W.Board(2/3)
NOTE:N.U.is Not Used Parts.

TO P. W. BOARD
TO PARTS LIST
TO CONTENTS


DVD/CD MONITOR SELECTOR
CD-LD CURRENT CONTROLLER
CD-LD CURRENT PRE-CONTROLLER
HFM CONTROLLER
DVD-LD CURRENT CONTROLLER
DVD-LD CURRENT PRE-CONTROLLER
SERVO MOTOR DRIVER
SLED-Motor Line
IC861 BD7905BFS
M101 MOTOR,M1N10RB95G (5V/250mA)
M102 MOTOR,24C0303020 (5V/350mA)
M103 MOTOR,MSDV020L01 (DC 6.5V)
SW803 SPVL120100
SW804 SPVG2303-E6 (LIMIT)
SW406 SPVG2303-E6 (LIMIT)
HD101 ED21A51L
CB801 52435-2891
CB861 52435-2491
LIMIT P.W.Board
FPC.LOAD P.W.Board
DV-MAIN P.W.Board(3/3)
NOTE:N.U.is Not Used Parts.

Terminal Voltage of IC/TR

MAIN1 P.W.Board

IC2500	Test Mode	AUX IN mode	
	Pin No.	Voltage(V)	NOTE
	1	AUDIO	
	2	4.3	
	3	AUDIO	
	4	0	
	5	AUDIO	
	6	4.3	
	7	AUDIO	
	8	8.6	
IC2650	Test Mode	NAVI mode	
	Pin No.	Voltage(V)	NOTE
	1	AUDIO	
	2	4.5	
	3	AUDIO	
	4	0	
	5	AUDIO	
	6	4.5	
	7	AUDIO	
	8	9	
IC3304	Test Mode	POWER ON	
	Pin No.	Voltage(V)	NOTE
	1	7.2	CTL
	2	9	VCC
	3	0	GND
	4	5	OUT
	5	1.3	C
IC3305	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	7	OUT
	2	0	GND
	3	9	IN
IC3309	Test Mode	POWER ON	
	Pin No.	Voltage(V)	NOTE
	1	2	CTL
	2	9	VCC
	3	0	GND
	4	5	OUT
	5	1.2	C
IC3310	Test Mode	POWER ON	
	Pin No.	Voltage(V)	NOTE
	1	3.3	CTL
	2	9	VCC
	3	0	GND
	4	8	OUT
	5	1.3	C
IC4001	Test Mode	DVD usual mode	
	Pin No.	Voltage(V)	NOTE
	1	2.08	
	2	0	
	3	2.12	
	4	3.2/0	R MUTE ON/OFF
	5	2/COMP	R MUTE ON/OFF
	6	7	
	7	1.3/COMP	R MUTE ON/OFF
	8	0	

TO SCHEMATIC TO CONTENTS

IC4002	Test Mode	DVD mode	
	Pin No.	Voltage(V)	NOTE
	1	-	V1
	2	AUDIO	LV1
	3	COMP	Y1
	4	AUDIO	RV1
	5	C SIGNAL	C1
	6	-	S1-1
	7	-	S-1
	8	COMP(AUX IN)	V2
	9	AUDIO(AUX IN)	LV2
	10	-	Y2
	11	AUDIO(AUX IN)	RV2
	12	-	C2
	13	-	S2-2
	14	-	S-2
	15	COMP(REAR CAMERA)	V3
	16	-	LV3
	17	-	Y3
	18	-	RV3
	19	-	C3
	20	-	S2-3
	21	-	S-3
	22	AUDIO(NAVI)	LV4
	23	COMP(NAVI)	V4
	24	AUDIO(NAVI)	RV4
	25	0	ADR
	26	pulse	SCL
	27	pulse	SDA
	28	-	DC OUT
	29	-	COUT2
	30	AUDIO(AUX OUT)	LOUT2
	31	-	YOUT2
	32	AUDIO(AUX OUT)	ROUT2
	33	COMP(AUX OUT)	VOUT2
	34	9	VCC
	35	-	MUTE
	36	-	YIN1
	37	0	BIAS
	38	-	CIN1
	39	AUDIO(MAIN OUT)	LOUT1
	40	COMP(MAIN OUT)	VOUT1
	41	AUDIO(MAIN OUT)	ROUT1
	42	-	TRAP1
	43	-	YOUT1
	44	0	VGND
	45	-	COUT1
	46	-	LTV
	47	-	TV
	48	-	RTV
IC4301	Test Mode	DVD	
	Pin No.	Voltage(V)	NOTE
	1	3	
	2	0	
	3	0	
	4	0	
	5	5	
	6	3	
	7	0	
	8	0	

TO SCHEMATIC TO CONTENTS

IC4302	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	5	CTL
	2	0	GND
	3	1.3	BYPASS
	4	3.3	VOUT
	5	5	VIN
IC4303	Test Mode	DVD	
	Pin No.	Voltage(V)	NOTE
	1	1.5	Vin1
	2	3.3	SW1
	3	1.7	Vin2
	4	0	SW2
	5	1.5	Vin3
	6	5	V+
	7	0.9	Vout
	8	0	GND
IC4304	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	pulse	
	2	pulse	
	3	pulse	
	4	0	
	5	pulse	
	6	pulse	
	7	pulse	
	8	3.3	
IC4305-1	Test Mode	DVD WITH NAVI CONNECTED	
	Pin No.	Voltage(V)	NOTE
	1	pulse	HSY IN
	2	pulse	SYNC_OUT
	3	pulse	SYNC_IN2
	4	1.92	SYNC_IN1
	5	3.6	HFIL_OUT
	6	3.28	SYNC_SW
	7	0	GND
	8	1.36	F_ADJ
	9	5.04	VCC1
	10	0	PSAVE
	11	pulse	SW2
	12	0	SW1
	13	RGB SIGNAL	BIN1
	14	RGB SIGNAL	GIN1
	15	RGB SIGNAL	RIN1
	16	RGB SIGNAL	BIN2
	17	RGB SIGNAL	GIN2
	18	RGB SIGNAL	RIN2
	19	COMP	HFIL_IN
	20	COMP	VIDEO_IN
	21	2.68	ACC_FIL
	22	2.36	CLP
	23	2.96	C_IN
	24	0.1	ACC_FIL
	25	0.1	TC1
	26	pulse	VCO_IN(NTSC)
	27	pulse	VCO_OUT(NTSC)
	28	2.5	APC_IN
	29	pulse	VCO_IN(PAL)
	30	pulse	VCO_OUT(PAL)
	31	0	GND
	32	0	GND
	33	RGB SIGNAL	R_OUT
	34	RGB SIGNAL	G_OUT
	35	RGB SIGNAL	B_OUT

TO SCHEMATIC TO CONTENTS

IC4305-2	Pin No.	Voltage(V)	NOTE
	36	5.08	VCC2
	37	1.96	COM_DC
	38	0	GND3
	39	pulse	COM_OUT
	40	12.87	VCC3
	41	pulse	COM_FRP
	42	pulse	FRP
	43	0	BLK_IN
	44	2.32	DAC_OUT
	45	3.56	NTSC/PAL_OUT
	46	3.3(PUSLE ACTIVE)	CLK
	47	0(PUSLE ACTIVE)	DI
	48	3.3	CS
IC4307	Test Mode	DVD mode	
	Pin No.	Voltage(V)	NOTE
	1	0/4.96	VMUTE OFF/ON
	2	0	
	3	0	
	4	0/3.28	VMUTE OFF/ON
	5	3.3	
IC4312-1	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	0	VSS1
	2	pulse	OSCin
	3	nc	OSCout
	4	3.3	CTRL1
	5	PULSE	SCLK
	6	PULSE	SIN
	7	pulse	CS
	8	3.3	VDD1
	9	4.8	VSYNC
	10	0	VBLK
	11	3.6	HSYNC
	12	0	HBLK
	13	0	TEST1
	14	0	TEST2
	15	3.3	RST
	16	0	VSS1
	17	3.3	VDD1
	18	nc	CLKOUT
	19	0	VSS1
	20	3.3	VDD1
	21	nc	RD2
	22	nc	RD1
	23	nc	RD0
	24	nc	GD2
	25	nc	GD1
	26	nc	GD0
	27	nc	BD2
	28	nc	BD1
	29	nc	BD0
	30	1.5	BLK
	31	0	VSS1
	32	3.3	VDD2
	33	nc	OUTR
	34	RGB SIGNAL	ROUT
	35	RGB SIGNAL	GOUT
	36	RGB SIGNAL	BOUT
	37	1.6	CCOMP
	38	1.1	VCR3F
	39	1.1	RREF
	40	0	VSS2
	41	pulse	D11

TO SCHEMATIC TO CONTENTS

IC4312-2	Pin No.	Voltage(V)	NOTE
	42	pulse	D10
	43	pulse	D9
	44	pulse	D8
	45	0	VSS1
	46	3.3	VDD1
	47	pulse	D7
	48	pulse	D6
	49	pulse	D5
	50	pulse	D4
	51	pulse	D3
	52	pulse	D2
	53	pulse	D1
	54	pulse	D0
	55	0	VSS3
	56	3.3	VDD3
	57	pulse	/OE
	58	pulse	/CS
	59	pulse	A17
	60	pulse	A16
	61	pulse	A15
	62	pulse	A14
	63	pulse	A13
	64	pulse	A12
	65	pulse	A11
	66	pulse	A10
	67	pulse	A9
	68	pulse	A8
	69	0	VSS3
	70	3.3	VDD3
	71	pulse	A7
	72	pulse	A6
	73	pulse	A5
	74	pulse	A4
	75	pulse	A3
	76	pulse	A2
	77	pulse	A1
	78	pulse	A0
	79	0	VSS3
	80	3.3	VDD3
IC4314-1	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	pulse	A15
	2	pulse	A14
	3	pulse	A13
	4	pulse	A12
	5	pulse	A11
	6	pulse	A10
	7	pulse	A9
	8	pulse	A8
	9	nc	N.C
	10	nc	N.C
	11	3.3	/WE
	12	0	/RESET
	13	nc	N.C
	14	nc	N.C
	15	nc	RY/BY
	16	nc	N.C
	17	pulse	A17
	18	pulse	A7
	19	pulse	A6
	20	pulse	A5
	21	pulse	A4
	22	pulse	A3

IC4314-2	Pin No.	Voltage(V)	NOTE
	23	pulse	A2
	24	pulse	A1
	25	pulse	A0
	26	pulse	/CE
	27	0	VSS
	28	pulse	/OE
	29	pulse	DQ0
	30	pulse	DQ8
	31	pulse	DQ1
	32	pulse	DQ9
	33	pulse	DQ2
	34	pulse	DQ10
	35	pulse	DQ3
	36	pulse	DQ11
	37	3.3	VCC
	38	pulse	DQ4
	39	pulse	DQ12
	40	pulse	DQ5
	41	pulse	DQ13
	42	pulse	DQ6
	43	pulse	DQ14
	44	pulse	DQ7
	45	pulse	DQ15/A-1
	46	0	VSS
	47	3.3	/BYTE
	48	pulse	A16
IC4322	Test Mode	DVD	
	Pin No.	Voltage(V)	NOTE
	1	3.3	
	2	3.3	
	3	0	GND
	4	5	
	5	5	VCC
IC4900	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	3	DVDD
	2	3	SELECT
	3	pulse	VCO_OUT
	4	pulse	FIN-A
	5	pulse	FIN-B
	6	pulse	PFD_OUT
	7	0	DGND
	8	nc	TEST
	9	0	PFD_INH
	10	0	VCO_INH
	11	0	VCO_GND
	12	1.3	VCO_IN
	13	2.6	BIAS
	14	3	AVDD

TO SCHEMATIC TO CONTENTS

IC4901	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	0	Q12
	2	pulse	Q6
	3	pulse	Q5
	4	pulse	Q7
	5	pulse	Q4
	6	pulse	Q3
	7	pulse	Q2
	8	0	GND
	9	pulse	Q12
	10	pulse	/CK
	11	pulse	CLR
	12	pulse	Q9
	13	pulse	Q8
	14	pulse	Q10
	15	0	Q11
	16	3	VCC

IC4902	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	pulse	
	2	3.3	
	3	pulse	
	4	pulse	
	5	pulse	
	6	pulse	
	7	0	
	8	pulse	
	9	pulse	
	10	pulse	
	11	pulse	
	12	pulse	
	13	pulse	
	14	3	

IC4903	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	pulse	1A
	2	0	3Y
	3	pulse	2A
	4	0	GND
	5	pulse	2Y
	6	0	3A
	7	pulse	1Y
	8	3	VCC

IC4905	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	pulse	
	2	pulse	
	3	0	
	4	pulse	
	5	3	

IC4906	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	5	CTL
	2	0	GND
	3	1.3	BYPASS
	4	3	VOUT
	5	5	VIN

IC4909	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	pulse	
	2	pulse	
	3	pulse	
	4	0	
	5	pulse	
	6	3	
	7	3	
	8	3	

IC5301-1	Test Mode	DVD MODE	
	Pin No.	Voltage(V)	NOTE
	1	3.27	AVREF1
	2	0	AVSS
	3	-	NC
	4	-	NC
	5	3.27	AVREF2
	6	0	AREA1
	7	0	AREA2
	8	0	FLMD0
	9	3.27	VDD
	10	2.54	REGC
	11	0	VSS
	12	PULSE	X IN
	13	PULSE	X OUT
	14	3.26	RESET
	15	-	NC
	16	-	NC
	17	3.27	NMI
	18	5	BAT-DET
	19	3.26	F-STBY
	20	PULSE	ISBUS FIN
	21	PULSE	ISBUS FOUT
	22	3.27	DAC LATCH
	23	0	DAC DATA
	24	0	DAC CLK
	25	PULSE	ISBUS TX
	26	PULSE	ISBUS RX
	27	3.25	BL PWM
	28	3.25	CENTER LED
	29	PULSE	REMIN
	30	PULSE	R REMOIN
	31	3.26	N/P SEL
	32	0	SYNC SEL
	33	0	EVSS
	34	3.27	EVDD
	35	PULSE	NAVI TX
	36	PULSE	NAVI RX
	37	5	NAVI CONT
	38	0	Y COMP SEL
	39	3.26	OSD RESET
	40	PULSE	OSD CS
	41	PULSE	OSD SOUT
	42	PULSE	OSD CLK
	43	PULSE(only when touch)	TP SEL4
	44	PULSE(only when touch)	TP SEL3
	45	-	NC
	46	PULSE(only when touch)	TP SEL2
	47	PULSE(only when touch)	TP SEL1

TO SCHEMATIC TO CONTENTS

IC5301-2	Pin No.	Voltage(V)	NOTE
	48	0	FORCE REACTOR
	49	3.2	LED CONT
	50	3.26	RGB CS
	51	pulse	RGB DO
	52	pulse	RGB CLK
	53	pulse	DVD DI
	54	pulse	DVD DO
	55	pulse	DVD CLK
	56	pulse	DVD SRQ
	57	3.16	ZERO DET IN
	58	3.05	V MUTE IN
	59	0	DVD RST
	60	3.27	DVD CS
	61	0	DVD EJECT
	62	3.26	DVD SW1
	63	3.26	DVD SW2
	64	-	NC
	65	3.27	MDS
	66	3.27	MDW
	67	0.07	MON
	68	0	BL OFF
	69	0	BVSS
	70	3.27	BVDD
	71	3.28	REVERSE
	72	3.34	M/P IN
	73	3.26	DISC IN LED
	74	3.26	BL CANCEL
	75	-	NC
	76	3.26	MECH POWER
	77	3.26	REM SEL
	78	3.1	D MUTE IN
	79	0	V MUTE OUT
	80	0	OPT MUTE
	81	3.26	VGH CONT
	82	3.26	VGL CONT
	83	3.26	LCD AV5V CONT
	84	3.26	AV8V CONT
	85	3.26	AV7/5V CONT
	86	3.26	ACCON-CONT
	87	3.25	DC 15/-10V CONT
	88	0	NC
	89	0	DOOR LED
	90	0	DVD+1.2V CONT
	91	3.27	DVD3.3V CONT
	92	3.27	DVD 5V CONT
	93	0	NC
	94	pulse	TP-X
	95	pulse	TP-Y
	96	3.29	KEY
	97	-	NC
	98	1.43	BL-TEMP
	99	2.75	DIM PHOTO
	100	2.69	DVD TEMP
IC5302	Test Mode	usual mode	
	Pin No.	Voltage(V)	NOTE
	1	3.3	VOUT
	2	3.3	VDD
	3	0	GND
	4	-	NC
	5	2	CT

TO SCHEMATIC TO CONTENTS

IC5303	Test Mode	DISC LOADED	
	Pin No.	Voltage(V)	NOTE
	1	3.3/0.1	IN_B
	2	3.3/0.1	IN_A
	3	0	GND
	4	3.3/0.1	OUT_Y
	5	3.3	VCC
IC5401	Test Mode	NAVI mode	
	Pin No.	Voltage(V)	NOTE
	1	pulse	
	2	pulse	
	3	pulse	
	4	pulse	
	5	0	
	6	NC	
	7	0	
	8	NC	
	9	0	
	10	NC	
	11	0	
	12	pulse	
	13	pulse	
	14	5	
IC6301	Test Mode	OPT on	
	Pin No.	Voltage(V)	NOTE
	1	pulse	
	2	0.1/3.3	OPT MUTE/nomal
	3	0	GND
	4	pulse	
	5	5	ACC5V
IC6302	Test Mode	steering remocon	
	Pin No.	Voltage(V)	NOTE
	1	5.0(PS)/0	front/rear
	2	0/4.5	normal/ steering remocon
	3	0	GND
	4	0/5.0(PS)	front/rear
	5	5	ACC5V
IC6303	Test Mode	front remocon	
	Pin No.	Voltage(V)	NOTE
	1	pulse	
	2	3.3/0.1	front/rear
	3	0	GND
	4	pulse	
	5	5	ACC5V
IC7001	Test Mode	DVD usual mode	
	Pin No.	Voltage(V)	NOTE
	1	pulse	BCK
	2	pulse	DATA
	3	pulse	LRCK
	4	0	DGND
	5	3.2	VDD
	6	5.04	VCC
	7	AUDIO	LOUT
	8	AUDIO	ROUT
	9	0	AGND
	10	2.4	VCOM
	11	3.2	ZEROR/ZEROA
	12	0	ZEROL/NA
	13	0	MD
	14	0	MC
	15	3.3	ML
	16	pulse	SCK

TO SCHEMATIC TO CONTENTS

IC7005	Test Mode	DVD usual mode	
	Pin No.	Voltage(V)	NOTE
	1	AUDIO	
	2	4	
	3	AUDIO	
	4	0	
	5	AUDIO	
	6	4	
	7	AUDIO	
	8	8	
Q2510	Test Mode	usual AUX out mode	
	Pin No.	Voltage	Note
	1	0/AUDIO	AMUTE ON/OFF
	2	0	
	3	0/AUDIO	AMUTE ON/OFF
	4	13.2/0	AMUTE ON/OFF
	5	0	
	6	13.2/0	AMUTE ON/OFF
Q2511	Test Mode	usual mode	
	Pin No.	Voltage	Note
	E	0	
	B	0.1/3.3	REVERSE OFF/ON
	C	3.3/0.1	REVERSE OFF/ON
Q3306	Test Mode	POWER ON	
	Pin No.	Voltage	Note
	E	-16	
	B	-15.3	
	C	-16	
Q3307	Test Mode	POWER ON	
	Pin No.	Voltage	Note
	1	nc	
	2	5	
	3	5	
	4	3.3	
	5	0	GND
Q3308	Test Mode	POWER ON	
	Pin No.	Voltage	Note
	1	nc	
	2	13	
	3	13	
	4	3.3	
	5	0	GND
Q3309	Test Mode	POWER ON	
	Pin No.	Voltage	Note
	B	6.17	
	C	6.89	
	E	6.93	
Q3310	Test Mode	POWER ON	
	Pin No.	Voltage	Note
	B	4.2	
	C	5	
	E	5	
Q3311	Test Mode	POWER ON	
	Pin No.	Voltage	Note
	E	0	
	B	3.3	
	C	0.1	
Q3312	Test Mode	POWER ON	
	Pin No.	Voltage	Note
	B	3.3	
	E	0.33	
	C	0.15	

TO SCHEMATIC TO CONTENTS

Q3313	Test Mode	POWER ON	
	Pin No.	Voltage	Note
	E	0	
	B	1.97	
	C	0.1	
Q4001	Test Mode	AUX out mode	
	Pin No.	Voltage	Note
	E	2.1/COMP SIGNAL	RMUTE ON/OFF
	B	1.4/COMP SIGNAL	RMUTE ON/OFF
	C	0	
Q4002	Test Mode	DVD mode	
	Pin No.	Voltage	Note
	E	COMP SIGNAL	
	B	COMP SIGNAL	
	C	7	
Q4003	Test Mode	DVD mode	
	Pin No.	Voltage	Note
	E	COMP SIGNAL	
	B	COMP SIGNAL	
	C	7	
Q4303	Test Mode	DVD usual mode	
	Pin No.	Voltage	Note
	E	COMP SIGNAL	
	B	COMP SIGNAL	
	C	0	
Q4304	Test Mode	SOURCE DISPLAY	
	Pin No.	Voltage	Note
	E	PULSE	
	B	PULSE	
	C	0	
Q4307	Test Mode	usual mode	
	Pin No.	Voltage	Note
	E	0	
	B	0.2/3.2	MUTE ON/OFF
	C	5/4.96	MUTE ON/OFF
Q4315	Test Mode	usual mode	
	Pin No.	Voltage	Note
	1	nc	
	2	3.3	
	3	3.3	
	4	3.3	
	5	0	GND
Q5401	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	B	PULSE	
	E	0	
	C	PULSE	
Q6301	Test Mode	when steering or optical remocon is operating	
	Pin No.	Voltage	Note
	B	pulse	
	E	0	GND
	C	pulse	
Q6302	Test Mode	when steering remocon is operating	
	Pin No.	Voltage	Note
	E	5	
	B	5.0/4.5	normal/press key
	C	0.1/4.5	normal/press key
Q6304	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	RGB SIGNAL	
	B	RGB SIGNAL	
	C	RGB SIGNAL	

TO SCHEMATIC TO CONTENTS

Q6305	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	RGB SIGNAL	
	B	RGB SIGNAL	
	C	RGB SIGNAL	
Q6306	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	RGB SIGNAL	
	B	RGB SIGNAL	
	C	RGB SIGNAL	
Q6307	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	PULSE	
	B	PULSE	
	C	PULSE	
Q6309	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	RGB SIGNAL	
	B	RGB SIGNAL	
	C	RGB SIGNAL	
Q6310	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	RGB SIGNAL	
	B	RGB SIGNAL	
	C	RGB SIGNAL	
Q6311	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	RGB SIGNAL	
	B	RGB SIGNAL	
	C	RGB SIGNAL	
Q6312	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	PULSE	
	B	PULSE	
	C	PULSE	
Q6314	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	RGB SIGNAL	
	B	RGB SIGNAL	
	C	7.92	
Q6315	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	RGB SIGNAL	
	B	RGB SIGNAL	
	C	7.92	
Q6316	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	RGB SIGNAL	
	B	RGB SIGNAL	
	C	7.92	
Q6317	Test Mode	NAVI mode	
	Pin No.	Voltage	Note
	E	PULSE	
	B	PULSE	
	C	7.92	
Q6318	Test Mode	NAVI MODE	
	Pin No.	Voltage	Note
	1	0.01	
	2	4.99	
	3	5.01	
	4	4.45	
	5	0	

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Q6319	Test Mode	NAVI MODE	
	Pin No.	Voltage	Note
	1	4.99	
	2	0	
	3	5.01	
	4	0	
	5	0	
Q7001	Test Mode	DVD usual mode	
	Pin No.	Voltage	Note
	B	C SIGNAL	
	C	0	
	E	C SIGNAL	
Q7002	Test Mode	DVD usual mode	
	Pin No.	Voltage	Note
	B	COMP SIGNAL	
	C	0	
	E	COMP SIGNAL	

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IC3100	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	-	NC
	2	13.52	O-REM
	3	4.53	ACC
	4	5.77	VDD-OUT
	5	5.095	SW-OUT
	6	5.288	COMP-OUT
	7	3.321	O-REM
	8	14.225	VCC
	9	1.945	B-DET
	10	8.64	AUDIO+B
	11	4.64	CTRL
	12	7.09	CD-OUT
	13	4.695	ILM-AJ
	14	9.07	ILM-OUT
	15	0	GND

IC3101	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	4.999	INPUT
	2	0	GND
	3	3.352	OUTPUT

IC3701	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	14.153	VIN
	2	9.3	SW
	3	1.897	FB
	4	open	GND
	5	1.05	INV
	6	-	RT
	7	3.23	EN/SYNC

IC3702	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	14.2	VIN
	2	4.507	SW
	3	1.42	FB
	4	open	GND
	5	1.04	INV
	6	-	RT
	7	3.25	EN/SYNC

IC3703	Test Mode	NORMAL	
	PinNo.	Voltage(V)	NOTE
	1	3	H/L
	2	-	NU
	3	2.82/0	H/L
	4	3.26	VCC
	5	2.99/0	H/L
	6	-	NU
	7	2.98/0	H/L
	8	3.26	VCC

IC3704	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	2.99/0	H/L
	2	2.58/0	H/L
	3	3.02/0	H/L
	4	3.26	VCC
	5	2.82/0	H/L
	6	2.86/0	H/L
	7	3/0	H/L
	8	3.26	VCC

IC3706	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	2.706	CTL
	2	9.07	VCC
	3	0	GND
	4	5.047	OUTPUT
	5	1.28	C

IC3707	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	4.249	INPUT
	2	0	GND
	3	2.547	OUTPUT

IC3708	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	4.235	INPUT
	2	0	GND
	3	3.354	OUTPUT

IC3709	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	2.54	VIN
	2	2.54	VB
	3	1.257	VO
	4	1.04	VADJ
	5	0	GND

IC3801	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	-	OSC
	2	-	SCP
	3	0.668	IN+1
	4	0.668	IN-1
	5	0.36	FB1
	6	0.6	DT1
	7	pulse	OUT1
	8	0	GND
	9	9.2	VCC
	10	pulse	OUT2
	11	0.56	RB2
	12	-	DT2
	13	0.62	FB2
	14	1.42	IN+2
	15	2.1	OFF
	16	1.27	VREF

IC3802	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	1.29	CTL
	2	0	GND
	3	3.309	BYPASS
	4	9.044	Vi
	5	5.067	Vo

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Q3100	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	B	4.64	
	E	0	GND
	C	0	

Q3101	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	B	2.9	
	C	3.62	
	E	3.62	

Q3102	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	1	0	
	2	4.98	
	3	4.99	
	4	3.3	
	5	0	GND

Q3103	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	E	0	GND
	B	5.16	
	C	0	

Q3104	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	1	0	
	2	5.13	
	3	5.17	
	4	5.48	
	5	0	GND

Q3105	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	1	0	
	2	5.16	
	3	5.2	
	4	2.13	
	5	0	GND

Q3106	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	E	0	GND
	B	0.047/0.6	
	C	1.93/0	BATT14.4/ BATT24V

Q3701	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	1	0	
	2	0.98	
	3	0	
	4	0	
	5	1.87	

Q3702	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	1	0	
	2	0.98	
	3	0	
	4	0	
	5	1.87	

Q3703	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	B	1.92	
	E	0	GND
	C	0.01	

Q3704	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	B	1.92	
	E	0	GND
	C	0.01	

Q3801	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	E	0	GND
	B	3.05	
	C	0.12	

Q3802	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	B	8.28	
	C	9.02	
	E	9.05	

Q3803	Test Mode	NORMAL(off)	
	Pin NO.	Voltage(V)	NOTE
	B	0.24	
	E	0	GND
	C	3.08	

Q3804	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	B	8.69	
	C	2.96	
	E	9.02	

Q3805	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	B	0.23	
	C	9.08	
	E	0	GND

Q3806	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	B	0.079	
	E	0	GND
	C	1.9	

Q3807	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	B	0.079	
	E	0	GND
	C	1.7	

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MAIN3 P.W.Board

IC2001	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	PULSE	SE1L
	2	PULSE	SE1R
	3	PULSE	FD1L+/SE3L
	4	PULSE	FD1L-/SE2L
	5	PULSE	FD1R+/SE3R
	6	PULSE	FD1R-/SE2R
	7	PULSE	FD2L+
	8	PULSE	FD2L-
	9	PULSE	FD2R+
	10	PULSE	FD2R-
	11	PULSE	AM
	12	PULSE	AMIF
	13	PULSE	MPX
	14	PULSE	LEVEL
	15	PULSE	MPIN
	16	PULSE	MPOUT
	17	PULSE	QUAL
	18	0.2	MUTE
	19	0	GND
	20	PULSE	DATA
	21	PULSE	CLK
	22	8.8	VCC
	23	PULSE	OUTSSR
	24	PULSE	OUTSSL
	25	PULSE	OUTSWR
	26	PULSE	OUTSWL
	27	PULSE	OUTRR
	28	PULSE	OUTRF
	29	PULSE	OUTLR
	30	PULSE	OUTLR
	31	PULSE	ACINRR
	32	PULSE	ACINRF
	33	PULSE	ACINLR
	34	PULSE	ACINLF
	35	PULSE	SWINR
	36	PULSE	SWINL
	37	PULSE	ACOUTR
	38	PULSE	ACOUTL
	39	PULSE	CRAF
	40	-	NC
	41	PULSE	MD1/SE4R
	42	PULSE	MD1G/SE4L
	43	PULSE	MD2
	44	PULSE	MD2G

IC2002	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	4.5	
	2	4.5	
	3	4.5	
	4	0	GND
	5	4.5	
	6	4.5	
	7	4.5	
	8	8.8	VCC

IC2003	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	PULSE	
	2	PULSE	
	3	4.5	
	4	0	GND
	5	4.5	
	6	PULSE	
	7	PULSE	
	8	8.8	VCC

IC2006	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	0	TAB-GND
	2	0	PW-GND
	3	PULSE	FR-
	4	5	ST-BY
	5	PULSE	FR+
	6	14.2	BATT
	7	PULSE	FL-
	8	0	PW-GND
	9	PULSE	FL+
	10	8.5	SVR
	11	PULSE	IN.FL
	12	PULSE	IN.FR
	13	0	S-GND
	14	PULSE	IN.RR
	15	PULSE	IN.RL
	16	0	AC-GND
	17	PULSE	RL+
	18	PULSE	PW-GND
	19	PULSE	RL-
	20	14.2	BATT
	21	PULSE	RR+
	22	5	MUTE
	23	PULSE	RR-
	24	0	PW-GND
	25	-	NC

IC2007	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	PULSE	OUT_A
	2	PULSE	INA(-)
	3	PULSE	INA(+)
	4	0	GND
	5	PULSE	INB(+)
	6	PULSE	INB(-)
	7	PULSE	OUT_B
	8	8.7	VCC

IC2010	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	AUDIO	OUT
	2	AUDIO	
	3	4.5	
	4	0	GND
	5	4.5	
	6	AUDIO	
	7	AUDIO	OUT
	8	8.8	VCC

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IC3001	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	3.34	CTL
	2	14.2	BATT
	3	0	GND
	4	9	OUT
	5	1.32	VREF
IC3002	Test Mode	MOTOR IS RUNNING	
	Pin No.	Voltage(V)	NOTE
	1	NC	
	2	8.3/0.3/0	OPEN/CLOSE/STOP
	3	NC	
	4	6.2/0	RUN/STOP
	5	NC	
	6	8.4/0.2/0.1	OPEN/CLOSE/STOP
	7	0	GND
	8	0.2/8.4/0.1	OPEN/CLOSE/STOP
	9	NC	
	10	9.13/9.05	STOP/RUN
	11	9.1/8.7	STOP/RUN
	12	NC	
	13	0.3/8.3/0	OPEN/CLOSE/STOP
	14	NC	
	15	6.4/0/0	CLOSE/OPEN/STOP
	16	NC	
	17	NC	
	18	NC	
	19	0	GND
	20	0	GND
	21	0	GND
	22	NC	
	23	NC	
	24	0/6.4/0	CLOSE/OPEN/STOP
	25	NC	
IC3003	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	2.77	CTL
	2	14.2	VCC
	3	0	GND
	4	9.06	OUT
	5	1.27	VREF
IC3004	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	14.2	VIN
	2	0	GND
	3	5	VOUT
IC3025	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	4.5	CTL
	2	14.2	BATT
	3	0	GND
	4	5.05	VOUT
	5	1.29	VREF

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IC3070	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	0	GND
	2	0	GND
	3	PULSE	REMOCON OUT,PULSE SIGNAL
	4	0	GND
	5	0	GND
	6	0	GND
	7	0	GND
	8	0	GND
	9	PULSE	REMONCON SELECTOR(3),PULSE SIGNAL
	10	PULSE	REMONCON SELECTOR(2),PULSE SIGNAL
	11	PULSE	REMONCON SELECTOR(1),PULSE SIGNAL
	12	PULSE	MAIN REMONCON,PULSE SIGNAL
	13	3.3	VCC
	14	PULSE	FRONT REMONCON,PULSE SIGNAL
	15	PULSE	REAR REMOCON,PULSE SIGNAL
	16	3.3	VCC(ACC+3.3V)
IC3071	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	0	GND
	2	0	GND
	3	PULSE	REMOCON OUT,PULSE SIGNAL
	4	0	GND
	5	0	GND
	6	0	GND
	7	0	GND
	8	0	GND
	9	PULSE	REMONCON SELECTOR(6),PULSE SIGNAL
	10	PULSE	REMONCON SELECTOR(5),PULSE SIGNAL
	11	PULSE	REMONCON SELECTOR(4),PULSE SIGNAL
	12	PULSE	MAIN REMONCON,PULSE SIGNAL
	13	3.3	VCC
	14	PULSE	FRONT REMONCON,PULSE SIGNAL
	15	PULSE	REAR REMOCON,PULSE SIGNAL
	16	3.3	VCC(ACC+3.3V)
IC3072	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	PULSE	REMOCON SIGNAL TO NAVI ,INPUT,PULSE
	2	PULSE	REMOCON SIGNAL TO NAVI ,INPUT,PULSE
	3	PULSE	REMOCON SIGNAL TO NAVI ,OUTPUT,PULSE
	4	0	GND
	5	0	GND
	6	0	NC
	7	0	GND
	8	-	NC
	9	0	GND
	10	0	GND
	11	PULSE	REMOCON SIGNA TO AUX ,OUTPUT,PULSE
	12	PULSE	REMOCON SIGNA TO AUX ,INTPUT,PULSE
	13	PULSE	REMOCON SIGNA TO AUX ,INTPUT,PULSE
	14	5.1	VCC(ACC+5V)
IC3075	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	PULSE	FRONT-REMOCON IN
	2	PULSE	FRONT-REMOCON IN
	3	PULSE	FRONT-REMOCON
	4	0	GND
	5	PULSE	REAR-REMOCON IN
	6	PULSE	REAR-REMOCON IN
	7	PULSE	REAAR-REMOCON
	8	3.3	VCC(ACC+3.3V)

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IC5001-1	Test Mode	FM MODE (WITH NAVI&IPOD&CHG CONNECTED)	
	Pin No.	Voltage(V)	NOTE
	1	3.27	AVREF1
	2	0	AVSS
	3	-	NC
	4	-	NC
	5	3.27	AVREF2
	6	3.26	CONT1
	7	0	CONT2
	8	0	FLMD0
	9	3.27	VDD
	10	2.54	REGC
	11	0	VSS
	12	PULSE	X IN
	13	PULSE	X OUT
	14	3.21	RESET
	15	-	NC
	16	-	NC
	17	3.25	NMI
	18	4.97	BAT DET
	19	4.93	ACC DET
	20	0	NC
	21	5.02	AI BUS IRQ
	22	4.95	VARI SDA
	23	4.94	VARI SCL
	24	0	FOSC-SEL1
	25	3.27	I-POD TXD
	26	3.1	IPOD RXD
	27	0	BUZZER
	28	3.27	AI BUS RS
	29	0	REM OUT
	30	3.27	AI BUS R/W
	31	4.91	P.IC ON
	32	3.27	AI BUS RESET
	33	0	EVSS
	34	3.27	EVDD
	35	PULSE	RDS TX
	36	PULSE	RDS RX
	37	0	AUX REM SEL A
	38	0	AUX REM SEL B
	39	0	AUX REM SEL C
	40	0	NAVI REM SEL A
	41	0	NAVI REM SEL B
	42	0	NAVI REM SEL C
	43	PULSE	IS BUS TX
	44	PULSE	IS BUS RX
	45	PULSE	IS BUS FOUT
	46	3.25	F-STBY
	47	5	TUNER SDA
	48	5	TUNER CLK
	49	0	RDS DATA
	50	0	RDS CLK
	51	3.26	MOTOR ON
	52	0	MOTOR FOR
	53	0	AI BUS IN
	54	PULSE	AI BUS OUT
	55	PULSE	AI BUS CLOCK
	56	PULSE	IS BUS FIN
	57	3.25	LIMIT SW1
	58	0.24	LIMIT SW2
	59	0.23	LIMIT SW3
	60	3.25	LIMIT SW4
	61	3.31	NRGB

IC5001-2	Pin No.	Voltage(V)	NOTE
	62	0	GUIDE-CONT
	63	0	H-PARK
	64	3.25	F-PARK
	65	0.18	IN INT
	66	0	MOTOR REV
	67	0	O.REMO
	68	0	FREQ CONT
	69	0	BVSS
	70	3.27	BVDD
	71	3.27	R.AMUTE
	72	3.27	R.V.MUTE
	73	0	M CONT IN
	74	0	M-CTL
	75	3.26	P.CONT
	76	-	NC
	77	0	AREA1
	78	0	AREA2
	79	3.25	P-ANT
	80	3.26	FAN CONT
	81	3.25	TUNER ON
	82	3.27	DISC DET IN
	83	3.26	/A.MUTE
	84	0	IF MUTE
	85	0.6	SSTOP
	86	3.24	IPOD CHAGE
	87	0	FOSC-SEL2
	88	3.26	IPOD RELESE
	89	-	NC
	90	0	DAVN
	91	0.14	IPOD DET
	92	3.27	QUARY
	93	3.26	MECH POWER
	94	0	NC
	95	1.62	ADJCH
	96	0	MP
	97	-	NC
	98	-	NC
	99	0.42	S/M
	100	-	NC

IC5004	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	PULSE	1A
	2	PULSE	1Y
	3	PULSE	2A
	4	PULSE	2Y
	5	PULSE	3A
	6	PULSE	3Y
	7	0	GND
	8	PULSE	4A
	9	PULSE	4Y
	10	PULSE	5A
	11	PULSE	5Y
	12	PULSE	6A
	13	PULSE	6Y
	14	5.1	VCC

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IC5005	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	PULSE	SCLK
	2	PULSE	SIN
	3	PULSE	SOUT
	4	PULSE	RS
	5	PULSE	SOUT
	6	PULSE	XO
	7	PULSE	XI
	8	PULSE	R/W
	9	0	VSS
	10	PULSE	IRQ
	11	PULSE	TEST
	12	5.1	AVCC
	13	PULSE	BUS+
	14	PULSE	BUS_
	15	3.3	RESET
	16	5.1	VCC
IC5007	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	AUDIO	OUT
	2	AUDIO	
	3	4.5	
	4	0	GND
	5	4.5	
	6	AUDIO	
	7	AUDIO	OUT
	8	5.1	VCC
Q1001	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	E	0	GND
	B	0.3	IF-MUTE FROM u-COM
	C	0.2	TUNER-AFC
Q1002	Test Mode	RADIO/OTHERS	
	Pin No.	Voltage(V)	NOTE
	B	8.0/8.8	
	E	8.7/8.8	AUDIO+8V
	C	8.3/0.3	
Q1003	Test Mode	RADIO/OTHERS	
	Pin No.	Voltage(V)	NOTE
	B	3.5/0.3	TUNER ON FROM u-COM
	E	0	GND
	C	0.4/8.8	
Q1004	Test Mode	RADIO/OTHERS	
	Pin No.	Voltage(V)	NOTE
	1	-	NC
	2	5.2	TUNER-SSTOP
	3	5.2	ACC+5V
	4	3.1/0.3	SSTOP CONT
	5	0	GND

TO SCHEMATIC TO CONTENTS

Q2002	Test Mode	MUTE/USUAL	
	Pin No.	Voltage(V)	NOTE
	1	0/AUDIO	SUB.W LEFT CHANNEL AUDIO SIGNAL
	2	0	GND
	3	0/AUDIO	SUB.W RIGHT CHANNEL AUDIO SIGNAL
	4	6.5/0	SUB.W RIGHT CHANNEL MUTE
	5	0	GND
	6	6.5/0	SUB.W LEFT CHANNEL MUTE
Q2003	Test Mode	MUTE/USUAL	
	Pin No.	Voltage(V)	NOTE
	1	0/AUDIO	REAR LEFT CHANNEL AUDIO SIGNAL
	2	0	GND
	3	0/AUDIO	REAR FIGHT CHANNEL AUDIO SIGNAL
	4	6.5/0	REAR RIGHT CHANNEL MUTE
	5	0	GND
	6	6.5/0	REAR LEFT CHANNEL MUTE
Q2004	Test Mode	MUTE/USUAL	
	Pin No.	Voltage(V)	NOTE
	1	0/AUDIO	FRONT LEFT CHANNEL AUDIO SIGNAL
	2	0	GND
	3	0/AUDIO	FRONT FIGHT CHANNEL AUDIO SIGNAL
	4	6.5/0	FRONT RIGHT CHANNEL MUTE
	5	0	GND
	6	6.5/0	FRONT LEFT CHANNEL MUTE
Q2005	Test Mode	MUTE/USUAL	
	Pin No.	Voltage(V)	NOTE
	E	0	GND
	B	3.4/0.3	AMP-MUTE FROM MUTE DRIVE
	C	0.3/5.1	ACC+5V
Q2006	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	E	0	GND
	B	5	ACC DET FROM MAIN u-COM
	C	0.1	MUTE PULL
Q2007	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	E	0	GND
	B	0.1	MUTE PULL
	C	5	MUTE
Q2009	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	E	0	GND
	B	3.3/0.3	RST-MUTE /USUAL
	C	0.3/5	MUTE TO POWER AMP
Q3001	Test Mode	Motor is RUNNING	
	Pin No.	Voltage(V)	NOTE
	1	-	NC
	2	9/0	CLOSE/OTHERS
	3	9	
	4	3.3/0	CLOSE/OTHERS
	5	0	GND
Q3002	Test Mode	Motor is RUNNING	
	Pin No.	Voltage(V)	NOTE
	1	-	NC
	2	9/0	OPEN/OTHERS
	3	9	
	4	3.3/0	OPEN/OTHERS
	5	0	GND
Q3003	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	B	5	ACC-DET
	E	0	GND
	C	0.1	

TO SCHEMATIC TO CONTENTS

Q3004	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	B	4.3	
	E	5	Ai+5V
	C	5	ACC+5V
Q3005	Test Mode	MUTE/USUAL	
	Pin No.	Voltage(V)	NOTE
	1	-	NC
	2	14.2/0	MUTE OUT(MUTE/USUAL)
	3	14.2	BATTERY
	4	3.3/0.3	AMP-MUTE(MUTE/USUAL)
	5	0	GND
Q3006	Test Mode	MUTE/USUAL	
	Pin No.	Voltage(V)	NOTE
	1	-	NC
	2	14.2/0	R-MUTE1 OUT
	3	14.2	BATTERY
	4	0.2/3.3	MUTE PULL
	5	0	GND
Q3007	Test Mode	MUTE/USUAL	
	Pin No.	Voltage(V)	NOTE
	B	0.3/3.3	u-COM A-MUTE
	E	0	GND
	C	3.6/0.2	AMP-MUTE
Q3008	Test Mode	MUTE/USUAL	
	Pin No.	Voltage(V)	NOTE
	B	3.3/0.3	u-COM A-MUTE
	E	0	GND
	C	0.2/3.5	MUTE-PULL
Q3032	Test Mode	RADIO/OTHERS	
	Pin No.	Voltage(V)	NOTE
	E	0	
	B	3.6/0.3	
	C	0.2/13.7	
Q3033	Test Mode	RADIO/OTHERS	
	Pin No.	Voltage(V)	NOTE
	E	13.5/13.8	
	C	13.5/0	
	B	12.8/13.8	
Q3051	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	B	3.3	H-PARKING
	E	5	ACC+5V
	C	5	u-COM H-PARKING
Q3052 (IVA-W200 Model Only)	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	C	0.1	u-COM F-PARKING
	B	14.4	F-PARKING
	E	0	GND
Q3053	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	B	3.3	IN-INT
	E	5	ACC+5V
	C	5	u-COM IN-INT
Q3055	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	B	9.7	FAN CONT
	C	14.2	BATTERY
	E	9	FAN+9V

TO SCHEMATIC TO CONTENTS

Q3057	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	-	NC
	2	14.2	FAN CONT OUT
	3	14.2	BATTERY
	4	3.3	FAN CONT FROM u-COM
	5	0	GND
Q3070	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	B	4.4	AUX MONITOR CON
	E	5.1	ACC+5V
	C	5	MONITOR CONT TO u-COM
Q4012	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	-	NC
	2	PULSE	IPOD-RXD FROM u-COM
	3	PULSE	IPOD-RXD TO IPOD SET
	4	3.5	IPOD-RELEASE FROM u-COM
	5	0	GND
Q4014	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	E	14.1	BATTERY
	C	14.1	IPOD POWER
	B	13.4	IPOD POWER CONT
Q4015	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	E	0	GND
	B	3.5	IPOD CHARGE CONT FROM u-COM
	C	0.4	
Q5003	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	1	-	NC
	2	4.7	AI-NET BUS+
	3	4.8	BATT 5V
	4	3.3	RST-MUTE
	5	0	GND
Q5004	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	B	0.1	RESET FROM MAIN u-COM
	E	3.4	VDD 3.3V
	C	3.3	RST-MUTE
Q5201	Test Mode	USUAL MODE	
	Pin No.	Voltage(V)	NOTE
	B	PULSE	BUZZER ON FROM MIAN u-COM
	E	0	GND
	C	PULSE	BUZZER

TO SCHEMATIC TO CONTENTS

LCD P.W.Board

IC8001-1	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	pulse	VIN
	2	pulse	CVOP
	3	pulse	HSY
	4	pulse	FRPT
	5	pulse	SYN
	6	pulse	FRPV
	7	-	TST
	8	4.88	VDD
	9	0	GND
	10	-	NC
	11	4.96	NTPC
	12	pulse	VSY
	13	4.96	HRVC
	14	0.2	VRVC
	15	4.87	CLKC
	16	pulse	PWM
	17	0	GND
	18	0	EXCL
	19	0	GND
	20	4.96	MDS
	21	4.96	MDW
	22	4.96	MON
	23	0	VCS
	24	4.96	TESTZ
	25	-	TST
	26	4.87	VDD
	27	0	GND
	28	pulse	SPOI
	29	-	TST
	30	pulse	SPIO
	31	-	GPS
	32	4.88	MOD2
	33	4.88	HRVC
	34	-	TST
	35	-	NV
	36	pulse	CTR
	37	-	NC
	38	pulse	PDP
	39	4.88	LPGC
	40	-	NC
	41	-	TST
	42	0	GND
	43	pulse	OSCO(O)
	44	pulse	OSCO(I)
	45	4.87	VDD
	46	0	GND
	47	pulse	CLD
	48	0	GND
	49	4.8	RESH
	50	4.8	RESV
	51	4.88	TST2
	52	4.88	TEST
	53	4.88	TST(I)
	54	-	TST(O)
	55	-	TST(O)
	56	-	TST(O)
	57	pulse	CLS
	58	pulse	SPS
	59	0	VRVC
	60	4.88	MOD1
	61	-	NC
	62	-	TLCK

IC8001-2	Pin No.	Voltage(V)	NOTE
	63	4.88	VDD
	64	0	GND
	65	4.88	LOW1
	66	-	TST
	67	-	TST
	68	-	TST
	69	-	TST
	70	pulse	BLK(I)
	71	pulse	BLK(O)
	72	-	NC
IC8201	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	0.1	OUTPUT
	2	1.28	INPUT
	3	0.3	INPUT
	4	0	GND
	5	0	GND
	6	0	GND
	7	-	OPEN
	8	4.96	VCC
IC8202	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	0.14	CTIMR
	2	0.84	OVP
	3	4.88	ENA
	4	3.35	SST
	5	4.88	VDDA
	6	0	GNDA
	7	3.34	REF
	8	1.12	RT1
	9	1.46	FB
	10	1.79	CMP
	11	pulse	NDR_D
	12	pulse	PDR_C
	13	2.64	LPWM
	14	0	DIM
	15	pulse	LCT
	16	0	PGND
	17	1.12	RT1
	18	pulse	CT
	19	pulse	PDR_A
	20	pulse	NDR_B
IC8203	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	2.64	
	2	0	GND
	3	2.64	
	4	2.56	
	5	4.96	VCC
IC8204	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	pulse	
	2	0.14	
	3	pulse	
	4	0	GND
	5	pulse	
	6	0	GND
	7	pulse	
	8	4.96	VCC

TO SCHEMATIC TO CONTENTS

IC8206	Test Mode	NORMAL	
	Pin No.	Voltage(V)	NOTE
	1	3.34	
	2	3.34	
	3	4.96	
	4	3.36	
	5	3.33	
	6	4.96	
	7	0	GND
	8	4.96	
	9	3.36	
	10	3.35	
	11	4.96	
	12	3.35	
	13	3.35	
	14	4.96	VCC

Q4502	Test Mode	TOUCH	
	Pin NO.	Voltage(V)	NOTE
	B	5.04	
	C	pulse	
	E	pulse	

Q4503	Test Mode	TOUCH	
	Pin NO.	Voltage(V)	NOTE
	E	0	GND
	B	pulse	
	C	pulse	

Q8001	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	E	pulse	
	B	pulse	
	C	pulse	

Q8201	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	E	0	GND
	B	0.32/0.7	Dimmer Auto/Off
	C	1.74/0	Dimmer Auto/Off

Q8202	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	E	0.082	
	B	0.12/3.25	BL on/off
	C	4.82/0.078	BL on/off

Q8205	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	1	0.126	
	2	2.55	PULSE
	3	8.74	
	4	7.22	PULSE
	5	4.41	PULSE
	6	4.41	PULSE
	7	4.41	PULSE
	8	4.41	PULSE

Q8206	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	1	0.125	
	2	P	
	3	8.74	
	4	P	
	5	P	
	6	P	
	7	P	
	8	P	

Q8208	Test Mode	TOUCH	
	Pin NO.	Voltage(V)	NOTE
	E	0	
	B	pulse	
	C	pulse	

Q8209	Test Mode	TOUCH	
	Pin NO.	Voltage(V)	NOTE
	E	pulse	
	B	3.29	
	C	pulse	

Q8210	Test Mode	TOUCH	
	Pin NO.	Voltage(V)	NOTE
	B	pulse	
	E	3.29	
	C	pulse	

Q8211	Test Mode	TOUCH	
	Pin NO.	Voltage(V)	NOTE
	B	pulse	
	E	3.29	
	C	pulse	

Q8212	Test Mode	TOUCH	
	Pin NO.	Voltage(V)	NOTE
	E	0	
	B	pulse	
	C	pulse	

Q8213	Test Mode	POWER ON	
	Pin NO.	Voltage(V)	NOTE
	E	0	GND
	B	0.92	
	C	0.14	

Q8214	Test Mode	POWER ON	
	Pin NO.	Voltage(V)	NOTE
	B	3.24	
	E	0	
	C	0.176	

Q8215	Test Mode	NORMAL	
	Pin NO.	Voltage(V)	NOTE
	B	0.18/2.4	unload/loaded
	E	0	
	C	7.43/0.2	unload/loaded

TO SCHEMATIC TO CONTENTS

SW P.W.Board

IC4501	Test Mode	PRESS REMOCON KEY	
	Pin No.	Voltage(V)	NOTE
	1	5.04	ACC+5V
	2	0	GND
	3	0	GND
	4	pulse	H/L
IC4502	Test Mode	AUTO DIMMER	
	Pin No.	Voltage(V)	NOTE
	1	3.53	VCC
	2	0	GND
	3	-	OPEN
	4	-	OPEN
	5	The ray is darker, and the voltage is smaller.	OUT

OPT P.W.Board

IC6500	Test Mode	OPT ON	
	Pin No.	Voltage(V)	NOTE
	1	0	GND
	2	2.49	IF.CONT
	3	5.34	VCC
	4	2.83/0.3	Input H:OPT ON Input L:OPT OFF

[Measuring Conditions]

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multimeter
3. Measuring Point Reference : Between GND
4. Measuring Condition : See each data

TO SCHEMATIC TO CONTENTS

(DVD Deck Mechanism)

IC601									
1	PS	53	3.25	105	0	157	0	209	3.28
2	PS	54	0	106	1.71	158	0	210	PS
3	0	55	3.25	107	3.26	159	3.28	211	PS
4	PS	56	3.25	108	2.32	160	0	212	PS
5	PS	57	3.25	109	1.78	161	3.26	213	0
6	3.28	58	3.25	110	1.78	162	0	214	N.U.
7	PS	59	3.26	111	1.78	163	1.57	215	N.U.
8	PS	60	3.26	112	1.63	164	0	216	3.28
9	0	61	3.25	113	1.63	165	1.36	217	PS
10	PS	62	3.26	114	0	166	N.U.	218	0
11	PS	63	0	115	0	167	3.28	219	1.13
12	3.28	64	0	116	1.6	168	0	220	PS
13	PS	65	3.26	117	0	169	1.59	221	PS
14	PS	66	3.26	118	3.28	170	1.58	222	0
15	PS	67	3.25	119	1.86	171	0	223	PS
16	0	68	3.26	120	1.56	172	1.16	224	PS
17	PS	69	3.25	121	1.37	173	0	225	3.29
18	PS	70	0	122	0	174	0	226	PS
19	3.26	71	3.26	123	0	175	0	227	PS
20	0	72	3.26	124	0	176	0	228	PS
21	PS	73	3.26	125	0	177	3.28	229	0
22	3.28	74	0	126	0	178	3.24	230	PS
23	PS	75	N.U.	127	2.16	179	0	231	3.28
24	PS	76	1.58	128	1.6	180	3.28	232	0
25	PS	77	1.59	129	1.89	181	0	233	PS
26	1.13	78	1.59	130	1.89	182	3.28	234	0
27	-	79	0	131	1.89	183	0	235	0
28	3.28	80	0	132	1.89	184	0	236	1.14
29	0	81	3.28	133	1.89	185	0	237	PS
30	PS	82	0	134	1.89	186	0	238	PS
31	PS	83	1.62	135	1.89	187	0	239	3.26
32	PS	84	3.28	136	1.89	188	0	240	2.82
33	PS	85	3.22	137	1.89	189	0	241	1.58
34	3.28	86	3.28	138	1.89	190	3.28	242	0
35	0	87	0	139	N.U.	191	0	243	1.56
36	PS	88	0	140	1.89	192	PS	244	3.26
37	PS	89	1.13	141	3.28	193	PS	245	3.26
38	3.3	90	0	142	1.16	194	PS	246	0
39	PS	91	0	143	1.86	195	PS	247	3.28
40	PS	92	0	144	2.13	196	3.28	248	3.28
41	PS	93	0	145	0	197	PS	249	0
42	PS	94	0	146	1.28	198	PS	250	3.28
43	PS	95	0	147	1.58	199	PS	251	PS
44	1.13	96	0	148	1.58	200	PS	252	0
45	PS	97	0	149	0	201	0	253	PS
46	PS	98	3.26	150	3.28	202	3.28	254	PS
47	PS	99	0.92	151	N.U.	203	PS	255	3.28
48	3.28	100	0	152	N.U.	204	PS	256	PS
49	0	101	2.32	153	0.92	205	0		
50	PS	102	2.29	154	0.82	206	PS		
51	PS	103	1.79	155	3.26	207	PS		
52	3.28	104	0	156	0	208	PS		

PS : Pulse waveform

TO SCHEMATIC TO CONTENTS

IC721									
1	PS	11	3.26	21	PS	31	PS	41	PS
2	PS	12	3.26	22	PS	32	PS	42	PS
3	PS	13	N.U.	23	PS	33	PS	43	PS
4	PS	14	0	24	PS	34	PS	44	PS
5	PS	15	N.U.	25	PS	35	PS	45	PS
6	PS	16	PS	26	3.28	36	PS	46	0
7	PS	17	PS	27	0	37	3.28	47	3.28
8	PS	18	PS	28	3.28	38	PS	48	PS
9	PS	19	PS	29	PS	39	PS		
10	PS	20	PS	30	PS	40	PS		

IC725									
1	PS	7	PS	13	PS	19	PS	25	PS
2	PS	8	PS	14	0	20	3.26	26	PS
3	PS	9	PS	15	PS	21	PS	27	3.27
4	PS	10	PS	16	PS	22	1.88	28	3.24
5	PS	11	PS	17	PS	23	PS		
6	PS	12	PS	18	PS	24	PS		

IC731									
1	3.28	12	0	23	PS	34	PS	45	PS
2	PS	13	PS	24	PS	35	PS	46	0
3	3.28	14	0	25	PS	36	N.U.	47	PS
4	PS	15	2.84	26	PS	37	3.27	48	PS
5	PS	16	3.22	27	3.26	38	1.76	49	3.28
6	0	17	3.22	28	0	39	3.28	50	PS
7	PS	18	3.22	29	3.26	40	N.U.	51	PS
8	PS	19	3.22	30	PS	41	0	52	0
9	3.28	20	2.84	31	PS	42	PS	53	PS
10	PS	21	PS	32	PS	43	3.28	54	0
11	PS	22	PS	33	PS	44	PS		

IC861									
1	5.12	12	0	23	0	34	0	45	0
2	5.12	13	0	24	1.56	35	0	46	0
3	5.12	14	0	25	0	36	0	47	0
4	5.12	15	0	26	1.56	37	0	48	0
5	5.12	16	0	27	1.6	38	0	49	1.0
6	5.12	17	0	28	1.6	39	0	50	1.04
7	5.14	18	0	29	1.6	40	0	51	7.14
8	0	19	7.14	30	7.12	41	0	52	1.58
9	0	20	7.12	31	7.12	42	0	53	1.52
10	7.2	21	3.32	32	7.12	43	0	54	5.1
11	0	22	0	33	0	44	7.1		

PS : Pulse waveform

TO SCHEMATIC TO CONTENTS

	E	B	C
Q601	3.28	0	0
Q602	0	3.28	0
Q801	0	0	5.0
Q802	5.0	5.0	0
Q811	0	0	5.0
Q812	5.0	5.0	0
Q831	0	0	2.7
Q832	0	0	0
Q833	0	2.7	0

Q810	
1	5.0
2	0
3	5.0
4	0
5	0

[Measuring Conditions]

1. Power Supply Voltage : DC12.0V - JIG
2. Measuring Meter : Digital Multimeter
3. Measuring Point Reference : Between GND
4. Measuring Condition : DVD mechanism unit only
   : State of power supply ON

TO SCHEMATIC TO CONTENTS

Description of IC Terminal

D70F3263YGC : IC5001

No.	Symbol	I/O	Terminal Description
1	AVREF1	-	AVREF power supply input terminal. (connect to VDD)
2	AVSS	-	GND electric potential power supply terminal of A/D converter.
3	NC	-	No connect terminal.
4			
5	AVREF2	-	AVREF power supply input terminal. (connect to VDD)
6	CONT1	O	HA13165 CONT1 control terminal.
7	CONT2	O	HA13165 CONT2 control terminal.
8	FLMD0	-	FLMD0 input terminal.
9	VDD	-	VDD connect terminal.
10	REGC	I	Capacitor (4.7uF) connect terminal.
11	VSS	-	GND electric potential power supply terminal.
12	X IN	I	Crystal OSC connect terminal for Main System Clock.
13	X OUT	O	Crystal OSC connect terminal for Main System Clock.
14	RESET	I	System RESET input terminal.
15	NC(GND)	-	GND connect terminal.
16	NC	-	No connect terminal.
17	NMI(PULL-UP)	-	Pull-up connect terminal.
18	BAT DET	I	BATT ON detection signal input terminal.
19	ACC DET	I	ACC ON detection signal input terminal.
20	NC	-	No connect terminal.
21	AI BUS IRQ	I	AI BUS IRQ signal input terminal.
22	VARI SDA	I/O	SDA input/output terminal to AV-SELECTOR, EEP-ROM, System Regulator and E-VOL.
23	VARI SCL	I/O	SCL input/output terminal to AV-SELECTOR, EEP-ROM, System Regulator and E-VOL.
24	FOSC-SEL1	O	BD9778 OSC control terminal.
25	I-POD TXD	O	Command output terminal to I-POD.
26	I-POD RXD	I	Status input terminal from I-POD.
27	BUZZER	O	BEEP output terminal.
28	AI BUS RS	O	AI-NET BUS R/S signal output terminal.
29	REM OUT	O	Remote controller signal output terminal.
30	AI BUS R/W	O	AI-NET BUS R/W signal output terminal.
31	P.IC ON	O	POWER IC STBY control terminal.
32	AI BUS RESET	O	AI-NET BUS RESET signal output terminal.
33	EVSS	-	GND connect terminal.
34	EVDD	-	VDD connect terminal.
35	RDS TX(NC)	-	No connect terminal.
36	RDS RX(NC)		
37	AUX REM SEL A	O	AUX1 remote controller OUT control terminal.
38	AUX REM SEL B	O	AUX1 remote controller OUT control terminal.
39	AUX REM SEL C	O	AUX1 remote controller OUT control terminal.
40	NAVI REM SEL A	O	Navigation remote controller OUT control terminal.
41	NAVI REM SEL B	O	Navigation remote controller OUT control terminal.
42	NAVI REM SEL C	O	Navigation remote controller OUT control terminal.
43	IS BUS TX	O	TX signal output terminal of u-COM communication between MAIN and FRONT.
44	IS BUS RX	I	RX signal input terminal of u-COM communication between MAIN and FRONT.
45	IS BUS FOUT	O	FRAME signal input terminal of u-COM communication between MAIN and FRONT.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
46	F-STBY	O	STAND-BY siganl output terminal to FRONT u-COM.
47	TUNER SDA	I/O	I2C-BUS DATA siganl input/output terminal of RADIO (TDA7540).
48	TUNER CLK	O	I2C-BUS Clock signal output terminal of RADIO (TDA7540).
49	RDS DATA(NC)	-	No connect terminal.
50	RDS CLK(NC)		
51	MOTOR ON	O	MOTOR DRIVE control terminal.
52	MOTOR FOR	O	MOTOR FOR control terminal.
53	AI BUS IN	I	AI-NET BUS signal input terminal.
54	AI BUS OUT	O	AI-NET BUS signal output terminal.
55	AI BUS CLK	O	AI-NET BUS SCLK signal output terminal.
56	IS BUS FIN	I	FRAME signal input terminal of u-COM communication between MAIN and FRONT.
57	LIMIT SW1	I	FULL CLOSE detection SW inputb terminal.
58	LIMIT SW2(PULL-UP)	-	Pull-up connect terminal.
59	LIMIT SW3(PULL-UP)		
60	LIMIT SW4	I	FULL OPEN (ANGLE3) detection terminal.
61	NRGB	I	Navigation Video signal RGB/NTSC detection input terminal. (H:RGB)
62	GUIDE-CONT	I	Navigation interrupt signal input terminal. (H:Interrupt)
63	H-PARK	I	Hand Brake input signal terminal. (H:vehicle stopping, L:vehicle driving)
64	F-PARK (*1)	I	Foot Brake input signal terminal. (H:vehicle stopping, L:vehicle driving)
	PULL-UP (*2)	-	Pull-up connect terminal.
65	IN INT	I	IN-INT input signal terminal.
66	MOTOR REV	O	MOTOR REV control terminal.
67	O.REMO	O	OUT-REMOTE signal output terminal.
68	FREQ CONT	O	DC/DC power supply frequency control output terminal.
69	BVSS	-	GND connect terminal.
70	BVDD	-	VDD connect terminal.
71	R.AMUTE	O	AUX AUDIO MUTE output terminal.
72	R V.MUTE	O	Rear Video MUTE signal output terminal.
73	M CONT IN	I	Rear Monitor remote controller detection signal input terminal of Touch Panel correspondence.
74	M-CTL	O	AI-NET power supply control output terminal.
75	P.CONT	O	AUDIO +9V power supply control output terminal.
76	NC(PULL-DOWN)	-	Pull-down connect terminal.
77	AREA1	I	Area switching 1 terminal.
78	AREA2	I	Area switching 2 terminal.
79	P-ANT	O	POWER ANT control output terminal.
80	FAN CONT	O	FAN control output terminal.
81	TUNER ON	O	TUNER power supply control terminal.
82	DISC DET IN	I	DISC DET input terminal.
83	$\overline{\text{A.MUTE}}$	O	A-MUITE signal output terminal.
84	IF MUTE(NC)	-	No connect terminal.
85	SSTOP	I	SEEK station detection signal input terminal.
86	IPOD CHAGE	O	Charge signal output terminal for I-POD.
87	FOSC-SEL2	O	BD9778 OSC control terminal.
88	IPOD RELESE	O	I-POD power supply control output terminal.
89	NC	-	No connect terminal.
90	DAVN(NC)		
91	IPOD DET	I	I-POD detection input terminal.
92	QUARY	I	Quality signal input terminal.
93	MECH POWER	I	DVD Mechanism power input terminal.

NOTE : (*1) : For IVA-W200 Model Only, (*2) : For IVA-W200E Model Only, Others : Common.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
94	NC	O	No connect terminal.
95	ADJCH	I	ADJCH signal input terminal.
96	MP(NC)	-	No connect terminal.
97	NC		
98			
99	S/M	I	SIGNAL-METER voltage input terminal.
100	NC	-	No connect terminal.

D70F3263YGC : IC5301

No.	Symbol	I/O	Terminal Description
1	AVREF1	-	AVREF power supply input terminal. (connect to VDD)
2	AVSS	-	GND electric potential power supply terminal of A/D converter.
3	NC	-	No connect terminal.
4			
5	AVREF2	-	AVREF power supply input terminal. (connect to VDD)
6	AREA1	I	Area discrimination signal input terminal.
7	AREA2	I	Area discrimination signal input terminal.
8	FLMD0	-	FLMD0 input terminal.
9	VDD	-	VDD connect terminal.
10	REGC	I	Capacitor (4.7uF)connect terminal.
11	VSS	-	GND electric potential power supply terminal.
12	XIN	I	Crystal OSC connect terminal for Main System Clock.
13	XOUT	I	Crystal OSC connect terminal for Main System Clock.
14	RESET	I	System RESET input terminal.
15	NC(GND)	-	GND connect terminal.
16	NC	-	No connect terminal.
17	NMI(PULL-UP)	-	Pull-up connect terminal.
18	BAT-DET	I	BATT ON detection signal input terminal.
19	F-STBY	I	STAND-BY detection signal input terminal.
20	ISBUS FIN	I	FRAME-IN signal input terminal for IS-BUS communication.
21	ISBUS FOUT	O	FRAME-OUT signal output terminal for IS-BUS communication.
22	DAC LATCH	O	LATCH control output terminal to DAC1742.
23	DAC DATA	O	Control DATA output terminal to DAC1742.
24	DAC CLK	O	CLOCK control output terminal to DAC1742.
25	ISBUS TX	O	TX signal terminal for IS-BUS communication.
26	ISBUS RX	I	RX signal terminal for IS-BUS communication.
27	BL PWM	O	PWM signal output terminal for backlight lighting & power control.
28	CENTER LED	O	CENTER LED control signal output terminal. (PWM control)
29	REMIN	I	Remote controller siganl input terminal.
30	R REMOIN	I	Rear remote controller siganl input terminal.
31	N/P SEL	O	NTSC/PAL switching signal output terminal. (H:NTSC, L:PAL)
32	SYNC SEL	O	Synchronous siganl switching signal output terminal. (H:Navigation side)
33	EVSS	-	GND connect terminal.
34	EVDD	-	VDD connect terminal.
35	NAVI TX	O	TX signal terminal for UART communication to Navigation. (Navigation side:EXRX former WIDE/NORM)
36	NAVI RX	I	RX signal terminal for UART communication to Navigation. (Navigation side:EXTX former DISP CONT)
37	NAVI CONT	I	Navigation communication error recovery processing terminal. (input NAVI-RXD same signal)

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
38	Y COMP SEL	O	Luminance signal/composite signal switching signal output terminal. (H:Y, L:Composite)
39	OSD RESET	O	RESET signal output terminal to OSD and Flash Memory.
40	OSD CS	O	Chip Enable signal output terminal to OSD.
41	OSD SOUT	O	Serial DATA output terminal to OSD.
42	OSD CLK	O	Clock signal output terminal to OSD.
43	TP SEL4	O	Touch Panel detection switching signal output terminal.
44	TP SEL3	O	Touch Panel detection switching signal output terminal.
45	NC	-	No connect terminal.
46	TP SEL2	O	Touch Panel detection switching signal output terminal.
47	TP SEL1	O	Touch Panel detection switching signal output terminal.
48	FORCE REACTOR	O	Force reactor signal output terminal.
49	LED CONT	O	LED power supply control signal output terminal. (output PWM at DIMMER)
50	RGB CS	O	Chip Enable signal output terminal to RGB Decoder.
51	RGB DO	O	Serial DATA output terminal to RGB Decoder.
52	RGB CLK	O	CLOCK siganl output terminal to RGB Decoder.
53	DVD DI	I	Serial DATA (status) input signal terminal to DVD Mechanism. (EPF-III communication)
54	DVD DO	O	Serial DATA (command) output signal terminal to DVD Mechanism. (EPF-III communication)
55	DVD CLK	O	Serial DATA (command) output signal terminal to DVD Mechanism. (EPF-III communication)
56	DVD SRQ	I	Serial communication syncronous clock output signal terminal to DVD Mechanism. (EPF-III communication)
57	ZERO DET IN	I	Audio MUTE signal input terminal from DAC1742.
58	V MUTE IN	I	Video MUTE signal input terminal.
59	DVD RST	O	System RESET signal output terminal to DVD Mechanism.
60	DVD CS	O	Chip Select signal output terminal to DVD Mechanism (EPF-III communication).
61	DVD EJECT	O	DVD Mechanism compulsion EJECT control terminal.
62	DVD SW1	I	DVD Mechanism DISC insertion detection-1 terminal.
63	DVD SW2	I	DVD Mechanism DISC insertion detection-2 terminal.
64	NC	-	No connect terminal.
65	MDS	O	Screen mode control signal output terminal to Timing Control IC.
66	MDW	O	Screen mode control signal output terminal to Timing Control IC.
67	MON	O	Screen mode control signal output terminal to Timing Control IC.
68	BL OFF	O	Backlight power supply control signal output terminal. (H:ON (lighting off), L:OFF(lighting))
69	BVSS	-	GND connect terminal.
70	BVDD	-	VDD connect terminal.
71	REVERSE	I	REAR CAMERA signal input terminal.
72	M/P IN	I	NTSC/PAL-IN Input terminal.
73	DISC IN LED	O	DISC-IN LED control signal output terminal.
74	BL CANCEL	I	Mode switching terminal for monitoring hard examination.
75	NC	-	No connect terminal.
76	NC(PULL-DOWN)	-	Pull-down connect terminal.
77	REM SEL	O	Remote controller signal output place switching terminal.
78	D MUTE IN	I	MUTE signal input terminal from DVD Mechanism.
79	V MUTE OUT	O	Video MUTE signal output terminal.
80	OPT MUTE	O	MUTE control terminal of built-in DISC sound OPT-OUT.
81	VGH CONT	O	Control signal output terminal of LCD power supply +15V output.
82	VGL CONT	O	Control signal output terminal of LCD power supply -10V output.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
83	LCD AV5V CONT	O	LCD VISUAL +5V control power supply terminal.
84	AV8V CONT	O	System VISUAL BUFF +8V control power supply control output terminal.
85	AV7/5V CONT	O	AV +7V/+5V control power supply control output terminal.
86	ACCON-CONT	O	ACC +9V power supply control output terminal.
87	DC 15/-10V CONT	O	DC/DC +15V/-10V power supply control output terminal.
88	NC	-	No connect terminal.
89	DOOR LED	O	DOOR LED control output terminal.
90	EJECT COLOR(NC)	-	No connect terminal.
91	DVD3.3V CONT	O	DVD +3.3V power supply control terminal.
92	DVD 5V CONT	O	System DVD Servo +5V power supply control terminal.
93	NC	-	No connect terminal.
94	TP-X	I	Touch Panel siganl input terminal.
95	TP-Y	I	Touch Panel siganl input terminal.
96	KEY	I	KEY input terminal.
97	NC	-	No connect terminal.
98	BL-TEMP	I	Backlight temperature detection terminal.
99	DIM PHOTO	I	Photo sensor input terminal for auto DIMMER.
100	DVD TEMP	I	DVD Mechanism temperature detection terminal.

TO SCHEMATIC TO CONTENTS

MN35206UB : IC601 (DV37M15B)

No.	Symbol	I/O	Terminal Description
1	MDQ9	I/O	SDRAM data 9 terminal.
2	MDQ5	I/O	SDRAM data 5 terminal.
3	VSS	-	GND terminal.
4	MDQ10	I/O	SDRAM data 10 terminal.
5	MDQ4	I/O	SDRAM data 4 terminal.
6	VDD33	-	I/O power supply terminal.
7	MDQ11	I/O	SDRAM data 11 terminal.
8	MDQ3	I/O	SDRAM data 3 terminal.
9	VSS	-	GND terminal.
10	MDQ12	I/O	SDRAM data 12 terminal.
11	MDQ2	I/O	SDRAM data 2 terminal.
12	VDD33	-	I/O power supply terminal.
13	MDQ13	I/O	SDRAM data 13 terminal.
14	MDQ1	I/O	SDRAM data 1 terminal.
15	MDQ14	I/O	SDRAM data 14 terminal.
16	VSS	-	GND terminal.
17	MDQ0	I/O	SDRAM data 0 terminal.
18	MDQ15	I/O	SDRAM data 15 terminal.
19	VDD33	-	I/O power supply terminal.
20	VSS	-	GND terminal.
21	EXADR20	I/O	External memory address 20 terminal.
22	NEXWE	O	External memory write enable output terminal.
23	EXADT0	I/O	External memory address data 0 terminal.
24	EXADT4	I/O	External memory address data 4 terminal.
25	EXADT8	I/O	External memory address data 8 terminal.
26	VDD12	-	Logic power supply terminal.
27	EXADT12	I/O	External memory address data 12 terminal.
28	VDD33	-	I/O power supply terminal.
29	VSS	-	GND terminal.
30	EXADR16	I/O	External memory address 16 terminal.
31	EXADR18	I/O	External memory address 18 terminal.
32	EXADT14	I/O	External memory address data 14 terminal.
33	EXADT10	I/O	External memory address data 10 terminal.
34	VDD33	-	I/O power supply terminal.
35	VSS	-	GND terminal.
36	EXADT6	I/O	External memory address data 6 terminal.
37	EXADT2	I/O	External memory address data 2 terminal.
38	NEXCE	O	External memory chip select output terminal.
39	EXADT1	I/O	External memory address data 1 terminal.
40	EXADT5	I/O	External memory address data 5 terminal.
41	EXADT9	I/O	External memory address data 9 terminal.
42	EXADT13	I/O	External memory address data 13 terminal.
43	EXADR17	I/O	External memory address 17 terminal.
44	VDD12	-	Logic power supply terminal.
45	EXADR19	I/O	External memory address 19 terminal.
46	EXADT15	I/O	External memory address data 15 terminal.
47	EXADT11	I/O	External memory address data 11 terminal.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
48	VDD33	-	I/O power supply terminal.
49	VSS	-	GND terminal.
50	EXADT7	I/O	External memory address data 7 terminal.
51	EXADT3	I/O	External memory address data 3 terminal.
52	NEXOE	O	External memory output enable terminal.
53	P15	I	FRAME detection input terminal.
54	P14	I	EJECT input terminal.
55	P13	O	V-MUTE output terminal.
56	P12	I	MECHA_SW5 input terminal.
57	P11(PULL-UP)	-	Pull-up connect terminal.
58	P10(PULL-UP)		
59	P9	I	MECHA_SW4 input terminal.
60	P8	I	MECHA_SW3 input terminal.
61	P7	I	MECHA_SW2 input terminal.
62	VDD33	-	I/O power supply terminal.
63	MMOD	I	Test mode setting terminal.
64	VSS	-	GND terminal.
65	P6	I	MECHA_SW1 input terminal.
66	P5	O	K_SRQ output terminal.
67	P4	I	K_S_CS input terminal.
68	P3	I	K_S_CLK input terminal.
69	P2	O	K_S_Data output terminal.
70	P1	I	K_S_Data input terminal.
71	P0	O	SRAM chip select output terminal.
72	FG	I	Motor Frequency Generator input terminal.
73	NRST	I	Master reset input terminal.
74	VSS	-	GND terminal.
75	NC(DRV0)	-	No connect terminal.
76	SPINDLE(DRV1)	O	Spindle driver control output terminal.
77	PlayB(DRV2)	O	Sled motor driver-B output terminal.
78	PlayA(DRV3)	O	Sled motor driver-A output terminal.
79	DRVCNT1(DRV4)	O	Driver logic control output-1 terminal.
80	DRVCNT2(DRV5)	O	Driver logic control output-2 terminal.
81	LMT_SW(DRV6)	I	LIMIT SW input terminal.
82	VRCNT(DRV7)	O	VR control output terminal.
83	LOAD_M(DRV8)	O	Loading driver output terminal.
84	VDD33	-	I/O power supply terminal.
85	P16(PULL-UP)	-	Bus Separate setting terminal. (Pull-up connect terminal.)
86	P17(PULL-UP)		
87	VSS	-	GND terminal.
88	MONI7(NC)	-	No connect terminal.
89	VDD12	-	Logic power supply terminal.
90	MONI6(NC)	-	No connect terminal.
91	MONI5(NC)		
92	MONI4(NC)		
93	VSS	-	GND terminal.
94	MONI3(NC)	-	No connect terminal.
95	MONI2(NC)		

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
96	MONI1(NC)	-	No connect terminal.
97	MONI0(NC)		
98	AVDDD	-	Analog power supply terminal.
99	PLFIL1	O	Capacitor connect terminal for DRCVCO.
100	AVSSD	-	Analog GND terminal.
101	VREFH7	O	ADC reference voltage terminal for DRC. (TOP)
102	VREFM7	O	ADC reference voltage terminal for DRC. (MDL)
103	VREFL7	O	ADC reference voltage terminal for DRC. (BTM)
104	CCAPA	O	Capacitor connect terminal for INLINE CAPA.
105	AVSSC	-	Analog GND terminal.
106	CDATA	O	Capacitor connect terminal for INLINE DATA.
107	AVDDC	-	Analog power supply terminal.
108	ANAMONI1	O	Internal analog monitor 1 terminal.
109	ANAMONI2	O	Internal analog monitor 2 terminal.
110	RFINN	I	External RF input (-) terminal.
111	RFINP	I	External RF input (+) terminal.
112	VIN6RF	I	RF input 6 terminal.
113	VIN5RF	I	RF input 5 terminal.
114	VIN4RF	I	RF input 4 terminal.
115	VIN3RF	I	RF input 3 terminal.
116	VIN2RF	I	RF input 2 terminal.
117	VIN1RF	I	RF input 1 terminal.
118	AVDDB	-	Analog power supply terminal.
119	VREFH5	I	5 bit AD reference voltage H terminal
120	VREFM5	I	5 bit AD reference voltage M terminal
121	VREFL5	I	5 bit AD reference voltage L terminal
122	AVSSB	-	Analog GND terminal.
123	LPC1	I	DVD LPC input terminal.
124	LPCO1	O	DVD LPC output terminal.
125	LPC2	I	CD LPC input terminal.
126	LPCO2	O	CD LPC output terminal.
127	VREFH	O	Decoupling terminal of reference voltage 2.20V. / Reference power supply terminal to Pickup.
128	VHALF	O	Decoupling terminal of reference voltage 1.65V.
129	VIN10	I	CD head input terminal.
130	VIN9		
131	VIN8	I	DVD head input terminal.
132	VIN7		
133	VIN6	I	CD head input terminal.
134	VIN5		
135	VIN4	I	DVD head input terminal.
136	VIN3		
137	VIN2		
138	VIN1		
139	AD2(NC)	-	No connect terminal.
140	AD1	I	TEMP_H input terminal.
141	AVDDH	-	Analog power supply terminal.
142	VREFL10	O	AD self bias reference terminal. (Low side)
143	AD0	I	TEMP_L input terminal.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
144	VREFH10	O	AD self bias reference terminal. (Hi side)
145	AVSSH	-	Analog GND terminal.
146	VCOF(NC)	-	No connect terminal.
147	PWM1	O	Tracking drive output terminal.
148	PWM0	O	Focus drive output terminal.
149	DAC1OUT(NC)	-	No connect terminal.
150	AVDDF	-	Power supply terminal for DAC.
151	DAC2OUT(NC)	-	No connect terminal.
152	DAC3OUT(NC)		
153	VREF	I	Internal DAC reference voltage terminal.
154	IREF1	I	Resistor connect terminal for internal DAC bias current setup.
155	COMP	I	Capacitor connect terminal for internal DAC stable.
156	DAC4OUT	O	Y(brightness) / Comp(composite) analog signal terminal.
157	AVSSF	-	GND terminal for DAC.
158	DAC5OUT(NC)	-	No connect terminal.
159	AVDDE	-	Power supply terminal for PLL.
160	AVSSE	-	GND terminal for PLL.
161	AVDDG	-	Power supply terminal for PLL.
162	AVSSG	-	GND terminal for PLL.
163	DACCK	O	Master clock output terminal.
164	VSS	-	GND terminal.
165	OSC1	I	OSC input terminal. (27MHz)
166	OSC0(NC)	-	No connect terminal.
167	VDD33	-	I/O power supply terminal.
168	EXTCK(PULL-DOWN)	-	Pull-down connect terminal.
169	LRCK	O	LR channel clock output terminal.
170	SRCK	O	Bit clock output terminal.
171	ADOUT3(NC)	-	No connect terminal.
172	VDD12	-	Logic power supply terminal.
173	VSS	-	GND terminal.
174	ADOUT2(NC)	-	No connect terminal.
175	ADOUT1(NC)		
176	ADOUT0	O	Audio Data 0 output terminal.
177	IECOUT	O	SPDIF output terminal.
178	VDD33	-	I/O power supply terminal.
179	VSS	-	GND terminal.
180	SCLOCK(PULL-UP)	-	Pull-up connect terminal.
181	EXTRG0(PULL-DOWN)	-	Pull-down connect terminal.
182	SDATA(PULL-UP)	-	Pull-up connect terminal.
183	EXTRG1(PULL-DOWN)	-	Pull-down connect terminal.
184	TRCCLK	O	A_Mute output terminal.
185	TRCDATA0(NC)	-	No connect terminal.
186	TRCDATA1(NC)		
187	TRCDATA2(NC)		
188	TRCDATA3(NC)		
189	TRCST(NC)		
190	VDD33	-	I/O power supply terminal.
191	VSS	-	GND terminal.

TO SCHEMATIC TO CONTENTS

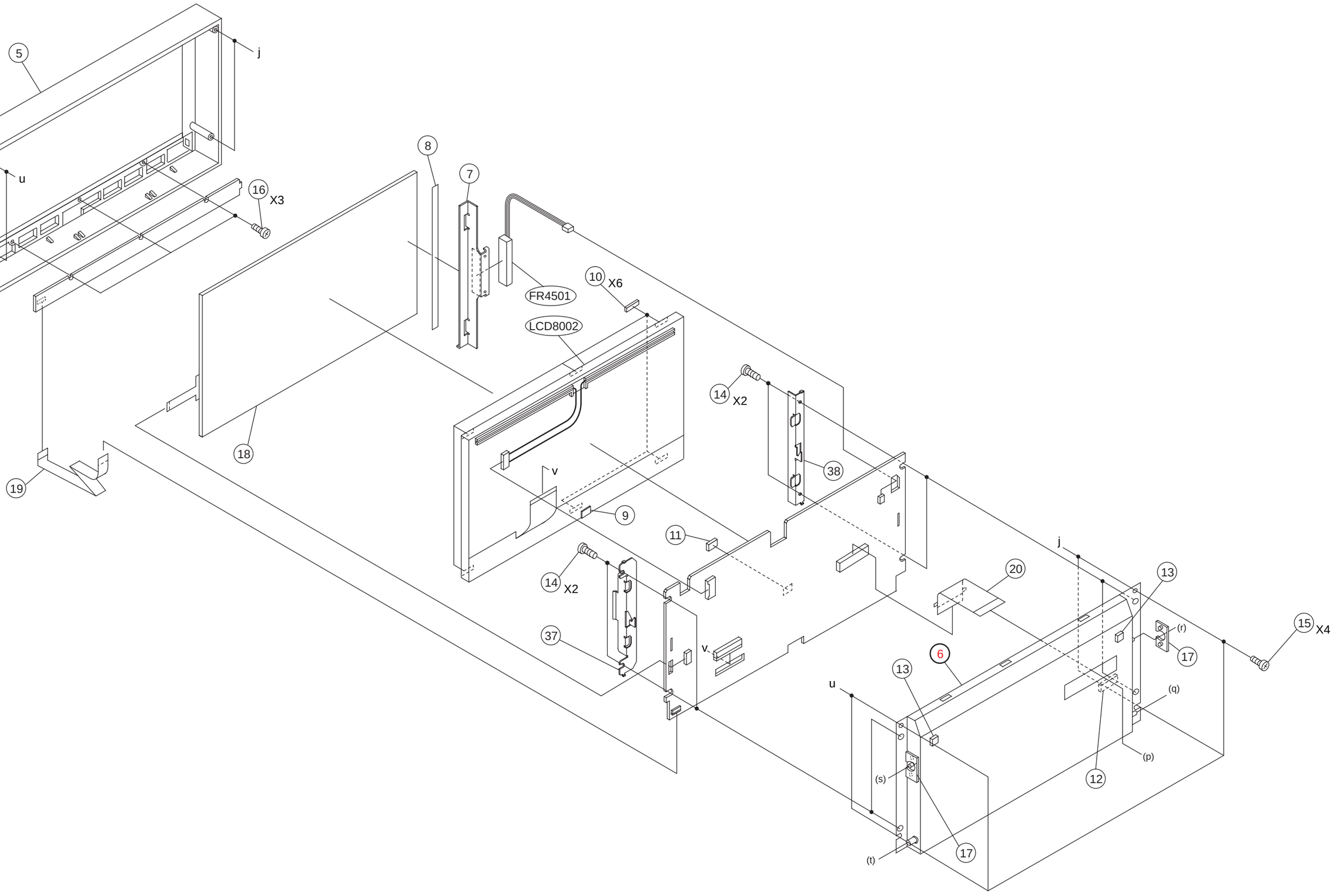
No.	Symbol	I/O	Terminal Description
192	MDQ24	I/O	SDRAM data 24 terminal.
193	MDQ23	I/O	SDRAM data 23 terminal.
194	MDQ25	I/O	SDRAM data 25 terminal.
195	MDQ22	I/O	SDRAM data 22 terminal.
196	VDD33	-	I/O power supply terminal.
197	MDQ26	I/O	SDRAM data 26 terminal.
198	MDQ21	I/O	SDRAM data 21 terminal.
199	MDQ27	I/O	SDRAM data 27 terminal.
200	MDQ20	I/O	SDRAM data 20 terminal.
201	VSS	-	GND terminal.
202	VDD33	-	I/O power supply terminal.
203	MDQ28	I/O	SDRAM data 28 terminal.
204	MDQ19	I/O	SDRAM data 19 terminal.
205	VSS	-	GND terminal.
206	MDQ29	I/O	SDRAM data 29 terminal.
207	MDQ18	I/O	SDRAM data 18 terminal.
208	MDQ30	I/O	SDRAM data 30 terminal.
209	VDD33	-	I/O power supply terminal.
210	MDQ17	I/O	SDRAM data 17 terminal.
211	MDQ31	I/O	SDRAM data 31 terminal.
212	MDQ16	I/O	SDRAM data 16 terminal.
213	VSS	-	GND terminal.
214	DQM3(NC)	-	No connect terminal.
215	DQM2(NC)		
216	VDD33	-	I/O power supply terminal.
217	MA3	O	SDRAM address 3 terminal.
218	VSS	-	GND terminal.
219	VDD12	-	Logic power supply terminal.
220	MA4	O	SDRAM address 4 terminal.
221	MA2	O	SDRAM address 2 terminal.
222	VSS	-	GND terminal.
223	MA5	O	SDRAM address 5 terminal.
224	MA1	O	SDRAM address 1 terminal.
225	VDD33	-	I/O power supply terminal.
226	MA6	O	SDRAM address 6 terminal.
227	MA0	O	SDRAM address 0 terminal.
228	MA7	I	SDRAM address 7 terminal.
229	VSS	-	GND terminal.
230	MA10	O	SDRAM address 10 terminal.
231	VDD33	-	I/O power supply terminal.
232	BA1	O	SDRAM bank address 1 terminal.
233	MA8	I/O	SDRAM address 8 terminal.
234	BA0	O	SDRAM bank address 0 terminal.
235	VSS	-	GND terminal.
236	VDD12	-	Logic power supply terminal.
237	MA11	O	SDRAM address 11 terminal.
238	MA9	O	SDRAM address 9 terminal.
239	VDD33	-	I/O power supply terminal.

TO SCHEMATIC TO CONTENTS

No.	Symbol	I/O	Terminal Description
240	NCSM	O	SDRAM chip select terminal.
241	MCKI	I	Clock input terminal from SDRAM.
242	VSS	-	GND terminal.
243	MCK	O	Clock output terminal to SDRAM.
244	NRAS	O	SDRAM row address strobe terminal.
245	NCAS	O	SDRAM column address strobe terminal.
246	VDD33	-	I/O power supply terminal.
247	VSS	-	GND terminal.
248	NWE	O	SDRAM write enable terminal.
249	DQM0	O	SDRAM data mask 0 terminal.
250	VSS	-	GND terminal.
251	DQM1	O	SDRAM data mask 1 terminal.
252	MDQ7	I/O	SDRAM data 7 terminal.
253	VSS	-	GND terminal.
254	MDQ8	I/O	SDRAM data 8 terminal.
255	VDD33	-	I/O power supply terminal.
256	MDQ6	I/O	SDRAM data 6 terminal.

TO SCHEMATIC TO CONTENTS

Exploded View (Cabinet)(1/3)



NOTE : The place of the connection of (p) , (q) , (r) , (s) (t)
as shown in ( ), is mentioned in the
"Exploded View (Cabinet) (2/3)".

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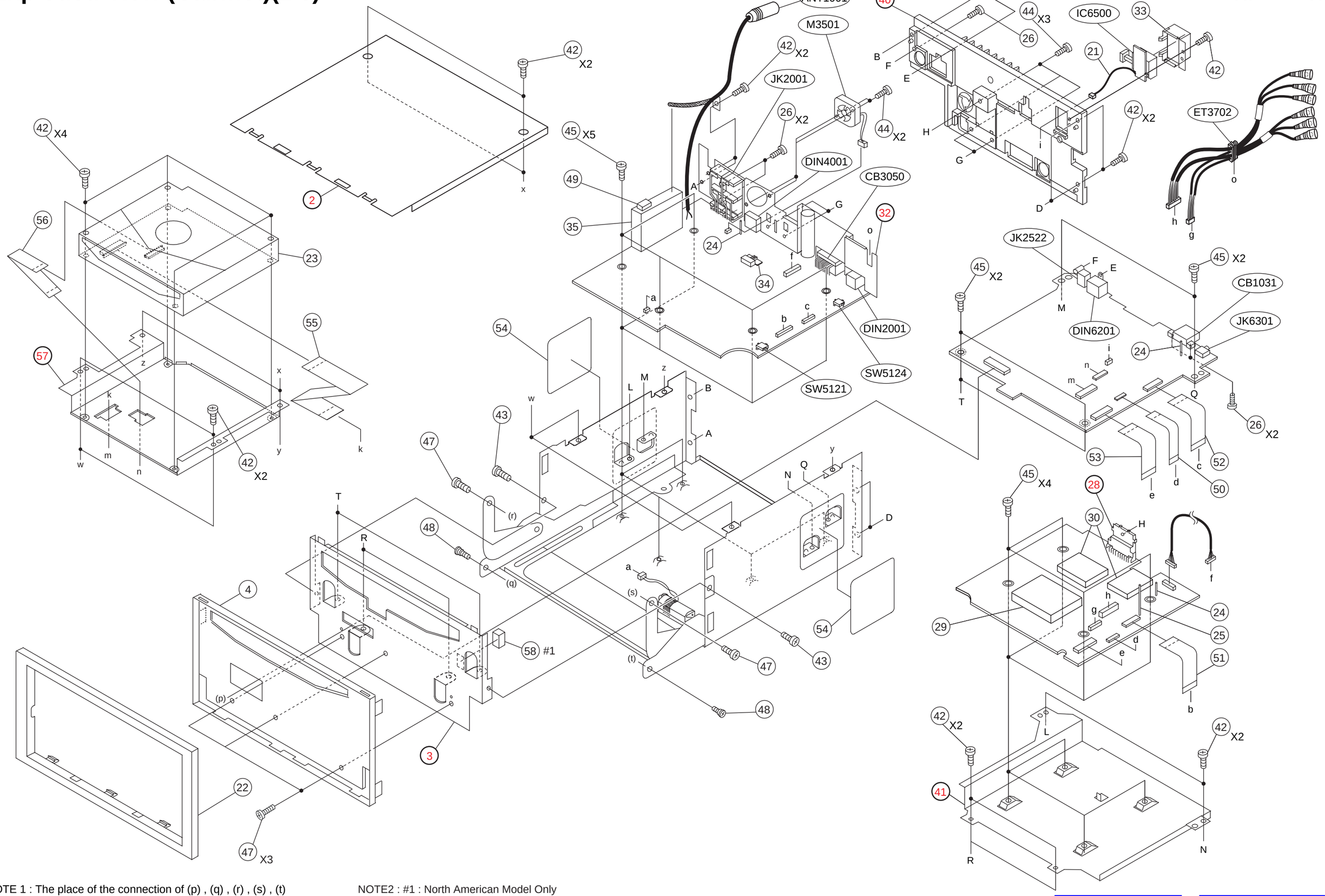
Exploded View (Cabinet)(2/3)



NOTE 1 : The place of the connection of (p) , (q) , (r) , (s) , (t) as shown in ( ), is mentioned in the "Exploded View (Cabinet) (1/3)".

NOTE2 : #1 : North American Model Only
Others : Common.

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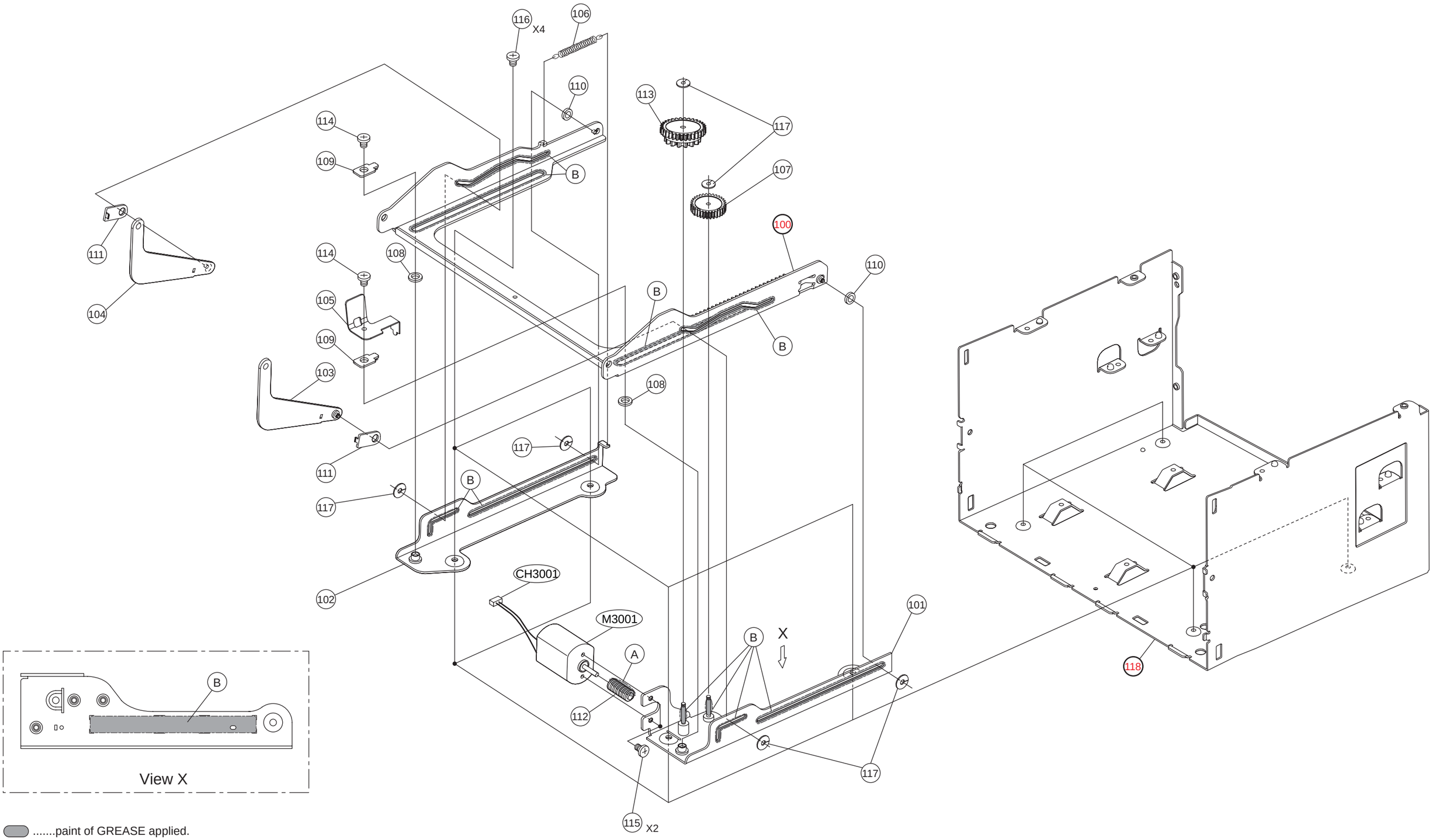
Exploded View (Cabinet)(3/3)



.....paint of GREASE applied.

Ⓐ	GREASE,G-8007(11S41558Y01)
Ⓑ	GREASE,G-1017(11T65588Y01)

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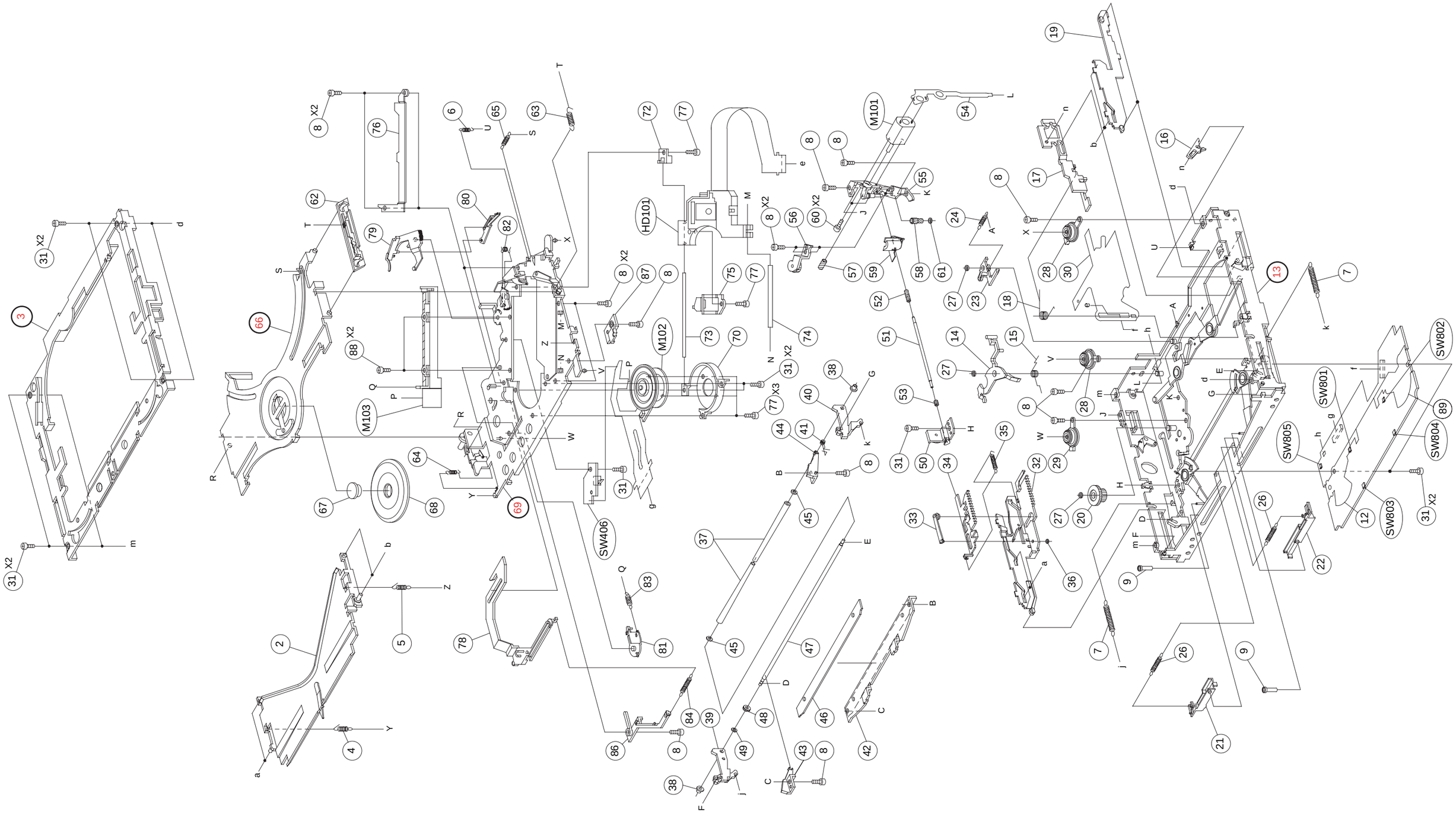
Exploded View(DVD Deck Mechanism)

(DV37M15B)



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